TWENTY-SIXTH

ANNUAL REPORT

OF THE

SANITARY CONDITION

OF

BOOTLE,

BY THE

MEDICAL OFFICER OF HEALTH.

BOOTLE:
BOOTLE PRINTING AND PUBLISHING CO., 107, BALLIOL ROAD.

1899.

Twenty-sixth Annual Report

ON THE

SANITARY CONDITION OF THE COUNTY BOROUGH OF BOOTLE.

DURING the year 1898 the Returns of the Local Registrar, Mr. Edwin Smith, record 1772 *Births* and 1005 *Deaths* within the Borough, the natural increase of the population within the Borough being therefore 767. On comparing these numbers with those in 1897, it will be seen that there was an increase in the number of births and a decrease in the number of deaths, viz.:—an increase of 24 in the number of births and a decrease of 32 in that of deaths, the natural increase in the past year within the Borough having been 56 more than in 1897.

POPULATION.

During the first half of the year I estimated the population at 53,000, feeling that I was justified in so doing on account of the number of new houses that had been erected and inhabited. A large number of persons in the Borough, however, were of opinion that this estimate was too small, and that the actual population was much larger. On my recommendation, the Health Committee ordered a census to be taken in order to obtain an accurate knowledge of the population. The census was accordingly taken by the police on the 14th July, and the population was found to be at that time 53,544, showing an increase over my estimate in the middle of the year of about 500. Taking every circumstance into consideration with regard to the fluctuating character of the population in Bootle during the year, both before and after the census, I have calculated the statistics upon the basis of the population being in the middle of the year 53,500, which number I think will be acknowledged to be as near as possible accurate.

The following table shows the number of Births and Deaths *within the Borough* during the 10 years 1888-1897 (inclusive) and in the year 1898 :—

Years.	Births	Deaths.	Years	Births.	Deaths.
1888	1681	820	1893	1828	1153
1889	1668	886	1894	1660	917
1890	1706	1017	1895	1823	1075
1891	1780	1165	1896	1759	1026
1892	1710	951	1897	1748	1037

1898—Births 1772—Deaths 1005.

This table shows a considerable variation in the number of births and deaths during the 11 years. The variation in the number of births is the more remarkable, as one would have expected that, as the population has steadily increased during the last 11 years, the number of births would also have increased in somewhat the same ratio ; but this remark does not apply to the number of deaths, which must vary according to the more or less prevalence of sickness and mortality in the district.

BIRTHS.

The number of Births registered in Bootle in 1898 was 1772, of which 892 were males and 880 females. Table No. 1 shows that the variation in the number of births registered in each month of the year was very considerable, the largest number (162) being in September, and the smallest (119) in May. The total number was 24 more than that in 1897, and the birth-rate was equal to 33·12 per 1,000, and exceeded that of the 33 large towns by 2·77, and that of England and Wales by 3·7 per 1,000.

DEATHS.

The number of Deaths registered in Bootle in 1898 was 1005, of which 512 were of males and 493 were of females, so that the deaths of males exceeded those of females by only 19. The total number was 32 less than in 1897, and the *Death-rate* of persons whose deaths *were registered in Bootle* was 18·78 per 1,000. As, however, as many as 105 paupers said to belong to Bootle died in the Walton and Mill Road Workhouses (principally in Walton) of the West Derby Union, and thus died "*outside the district*," and 55 deaths of persons not belonging to Bootle occurred "*within the district*," principally in the Bootle Borough Hospital and in the Corporation Hospital for Infectious Diseases, Linacre, the difference between these numbers, viz. 50, must be added to the 1005 deaths before mentioned. The death-rate was without this addition 18·78, but with this addition 19·71 per 1,000, the latter being 0·61 per 1,000 *less* than in 1897. The death-rate was with this addition about 0·7 in excess of that of the average of the 33 large towns, which was 19·02, the latter being nearly the same as in 1897. The death-rate in England and Wales was 17·6 per 1,000. Of the 105 paupers who died in the Workhouses, belonging to Bootle, there were admitted—1 in 1888, 2 in 1893, 4 in 1894, 1 in 1895, 7 in 1896, 14 in 1897, and 76 in 1898. There is, I think, no doubt that all these persons were originally sent from Bootle to the Workhouses, but whether all of them should be really classified as persons belonging to Bootle is, in my opinion, doubtful, for as I observed in my last Report, a considerable number of these deaths were of persons of migratory habits, seeking employment in the docks or elsewhere, others being of the vagrant class admitted from Common Lodging Houses, and having no fixed residence, whereas I think it very probable that many deaths occurring in the town (not in the Hospital) may have been of visitors or persons "not belonging thereto."

INFANT MORTALITY.

The deaths of children under 5 years of age within the Borough amounted to 503, and thus comprised slightly over 50 per cent. of the whole deaths. The total number was 24 less than that in 1897, and the percentage slightly less. The deaths of Infants under one year were 329, and were 20 less than in 1897. They were 183 per 1,000 of the registered births, in other words 18·3 per cent. of those born died within the 1st year of life, a percentage 1·6 less than that in 1897. The largest number of deaths under 5 years occurred in August, when 69 children died, and of these 52 were of infants under one year. The greatest percentage of children who died in one month under 5 years was also in August, when nearly 67 per cent. succumbed. The largest number of deaths of infants under one year also occurred in August, when 52 infants died. By the published returns of infant mortality, measured by the proportion of deaths under one year to the registered births, I find that in the 33 large towns the average mortality was 178, and in the whole of England and Wales 161 per 1,000.

Analysis of the Causes of Deaths—I will now review the causes of deaths in Bootle during the past year. It is certainly satisfactory to note that the *number of deaths registered in Bootle* was 32 less than in 1897, but owing to the large mortality in Walton Workhouse the total mortality (*i.e.* with the addition of the excess of deaths in the Workhouses over those of non-residents who were known to die in Bootle) was 2 less than in 1897, and the total death-rate only exceeded the average death-rate of the 33 large towns by about 0·7 per 1,000. In order to show this clearly, I will first compare the *total* death-rates of Bootle in the 4 quarters of the year with the approximate death-rates of the 33 large towns and of the whole of England and Wales.

	Bootle		33 Large Towns.		England and Wales.
1st Quarter	18·50	...	20·6	...	19 5
2nd ,,	18·30	...	17·1	.	16·2
3rd ,,	24·11	..	20·3	...	17·9
4th ,.	17·95	...	18·1	...	16·7

On comparing these death-rates it will at once be noticed that (as in former years) the large preponderance of the death-rate of Bootle in the third quarter was the real cause of the total death-rate of Bootle being slightly in excess of that of the 33 large towns, for the death-rate of the first quarter in Bootle was considerably less (a little over 2 in the 1,000) than that of the 1st quarter in the 33 large towns; in fact, several of the large towns had greater death-rates than that of Bootle. I will now compare the infant mortality of Bootle, measured by the proportion of deaths under one year to registered births, with that of the 33 large towns, and of the whole of England and Wales, in the 4 quarters of the year :—

	Bootle		33 Large Towns.		England and Wales.
1st Quarter	125	...	145	...	141
2nd ,,	157	...	133	...	123
3rd ,,	295·2	...	275	...	225
4th ,,	153·8	...	159	...	153
Total mean of the 4 quarters	183	...	178	...	161

This tabular statement also proves that the cause of the total death-rate being slightly in excess of the 33 large towns was principally owing to the large number of infantile deaths during the year, especially in the 2nd and 3rd quarters. The infant mortality in the 1st and 4th quarters, however, is proved to have been even less than that of the large towns, and the total mean infant mortality in Bootle in the 4 quarters of 1898 was 16 less than that in 1897. Still the infant mortality in Bootle was certainly too large, and was in a great measure due to the large number of deaths from infantile diarrhœa. In the 3rd quarter the deaths from this fatal infantile disease was 94, of which 90 were of infants under 1 year. I am glad to remark, however, that the diarrhœa was certainly less fatal during the last year than in 1897, for whereas the total number of fatal cases was in 1897 no less than 153, the total number in 1898 was only 114, or 39 less. On comparing the total mortality in Bootle in 1898 with that of the previous year, it will be noticed that there was a decrease in the number of deaths from 4 of the principal zymotic diseases in 1898, viz., a decrease of 7 from measles, 2 from scarlatina, 3 from enteric fever, and 39 from diarrhœa, and there was no death from small-pox. Unfortunately, however, there were 7 deaths from typhus fever, through an outbreak of that zymotic, from which only 5 deaths had been registered during the previous 10 years. There was also an increase of 3 deaths from diphtheria, and 14 from whooping cough. With regard to other diseases and causes of death, there was a decrease in the number of deaths from the following notable diseases :—22 from tubercular diseases (including 9 from phthisis), 13 from diseases of brain, 4 from diseases of kidneys, and 4 from deaths through violence. On the other hand there was an *increase* of 4 from influenza, 10 from cancer, 7 from diseases of heart, and 17 from premature birth. The number of deaths from pulmonary diseases and diseases of stomach, liver, &c., were nearly the same as in 1897. According to the Registrar's returns, there was an increase of 2 in the number of deaths in the Bootle Borough Hospital, and an increase of 16 in the Corporation Hospital for Infectious Diseases. There was an increase of 173 in the number of paupers attended by the District Medical Officer during the year, the numbers in the 4 quarters having been as follows :—1st quarter 271, 2nd quarter 231, third quarter 227, and 4th quarter 214 ; total, 943. Table No. 4 gives a summary of the deaths from the various classes of diseases, including the important class of zymotic diseases, the mortality from every one of which diseases is separately enumerated ; but Table No. 3 gives the total number of deaths from these zymotic diseases, after " deducting and adding deaths from outside and inside the Borough." In accordance with the order of the Local Government Board, I will now pass on to refer to the *sanitary work accomplished during the year*, and supply information on each of the 7 principal zymotic diseases, and give a summary *of the action taken, or which I have advised the Sanitary Authority to take, to prevent the spread of these diseases.*

ZYMOTIC DISEASES.

The number of deaths from the 7 principal zymotic diseases, viz., small-pox, measles, scarlatina, diphtheria, whooping cough, fevers, and diarrhœa (after deducting 14 deaths of persons "outside the district," viz., 5 from scarlatina, 1 from diphtheria, 8 from enteric fever, occurring in the Hospital for Infectious Diseases, and adding 1 death from whooping cough, occurring in Walton Workhouse) was 191, which number *was 27 less* than that in *1897*. Of this number 159 were of children under 5 years. The total *zymotic death-rate* was 3·56 in the 1,000, but if the death-rate from diarrhœa (2·13) is deducted, that for the 6 other zymotics amounted only to 1·43. The total number of these zymotic diseases (191) was only 17 in excess of the average of the preceding 10 years, even after adding the large number of diarrhœa deaths, so that there was a distinct improvement in the number of deaths from zymotic diseases. The number of infectious or contagious diseases notified to me during the year was 487, which number was 10 less than that in the preceding year, and 41 less than in 1896. The diseases notified were as follows:—Scarlatina 263, diphtheria 17, membranous croup 4, typhus fever 36, enteric fever 124, puerperal fever 2, erysipelas 41. The comparison of the death-rates from these diseases in Bootle with those in the 33 large towns and in England and Wales was as follows:—

	Bootle.	33 Large Towns.	England and Wales.
Small-pox	—	—	—
Measles	0·13	0·56	
Scarlatina	0·185	0·14	
Diphtheria	0·149	0·31	
Whooping Cough	0·523	0·42	
Fevers { Typhus Enteric	0·13 0·318 } 0·448	0·20	
Diarrhœa	2·13	1·22	
Totals	3·56	2·85	2·22

It will be noticed that the total death-rate in Bootle last year was only 0·73 in excess of that in the 33 large towns, and this excess was entirely due to the large death-rate from diarrhœa; in fact, if it had not been for this large death-rate from diarrhœa, the total zymotic death-rate of Bootle would have been even *less* than that of the large towns, for the total death-rate of the other 6 zymotics was actually less than that of the other 6 zymotics in the large towns. It will be seen by the Local Government Board's Table B, that of the 487 cases notified, 154 were from Derby Ward, 178 from Knowsley Ward, and 155 from Stanley Ward ; therefore the notifications from Knowsley Ward exceeded those from Derby and Stanley Wards by 24 and 23 respectively, whilst the notifications from Derby and Stanley Wards were almost exactly the same. On comparing the number of notifications in each of the three wards during the past two years, it will be noticed that there was very little difference in any one of the wards. The number of deaths from these wards in the hospital were 2 from Derby Ward (1 scarlatina and 1 enteric fever), 12 from Knowsley Ward (4 scarlatina, 7 enteric and 1 diphtheria), and 12 from Stanley Ward (2 scarlatina, 1 enteric fever, 6 typhus, 1 diphtheria, 1 premature birth, 1 phthisis, 1 meningitis—the two latter are said to be wrongly notified, and the premature birth was that of an infant born in the hospital)—total 26. The number of deaths of persons from these notifiable zymotic diseases that occurred in their homes were as follows :—Derby Ward 3, Knowsley Ward 8, Stanley Ward 7—total 18. The 3 in Derby Ward were 2 from scarlatina and 1 from diphtheria. The 8 in Knowsley Ward were 1 from scarlatina, 6 from enteric fever, and 1 from diphtheria. The 7 in Stanley Ward, 2 from enteric fever, 1 from typhus, 4 from diphtheria. The total number of deaths of Bootle persons from these diseases, both in their homes and in hospital, was therefore as follows :—Derby Ward 5, Knowsley Ward 20, Stanley Ward 20—total 45. The number of deaths in the Linacre Hospital from the out-townships was 14, viz., 10 from Waterloo and Seaforth, 1 from Litherland, 2 from Crosby, and 1 from West Derby, being an increase of 8 from the out-townships.

HOSPITAL FOR INFECTIOUS DISEASES.

The total number of cases treated in the Isolation Hospital for Infectious Diseases at Linacre was 393, an increase of 105 over the number treated in 1897. Of the total number 277 were residents, and 116 non-residents. Of the residents admitted and treated in the Hospital 81 were from Derby Ward, 105 from Knowsley Ward, and 91 from Stanley Ward. Of the non-residents 83 were from Waterloo and Seaforth, 21 from Litherland, 10 from Crosby, 1 from West Derby, and 1 from Garston. There was thus an increase of 43 cases from Bootle, and no less than 62 from the out-townships. The increase of cases from Derby Ward was 7, the increase from Knowsley

Ward 11, and that from Stanley Ward 25. It will be seen by the Local Government Board's Table A that the total number of deaths in the Hospital was 41, which was exactly the same number of deaths as in 1896, but was an increase of 16 over the number of deaths in 1897. Of the total deaths in 1898, 27 were from Bootle, and 14 from the out-townships, giving a total death-rate of 10·43 per cent. The percentage of deaths from the Bootle cases was 9·74, and that from the out-townships 12·06. It will be noticed that the percentage of deaths during last year was slightly in excess of that in 1897, but as has been often remarked, the rate of mortality is not a fair test of the treatment in a Hospital, as many cases are often sent in a hopeless condition, and thus must materially increase the number of deaths. It is gratifying, however, to remark that although the number of notifications during last year was 10 less than in 1897, the number of patients admitted from Bootle was 43 more, and the number from the out-townships 62 more than that in 1897, and I therefore think that this is a proof that the Hospital continues to be appreciated and approved by the public, both of Bootle and the out-townships. I may hear state that the Medical Superintendent (Dr. Thomas Jones) having resigned the appointment in September last in order to commence private practice, Dr. F. Reynolds was appointed to the post thus vacated, and commenced his duties in October last.

DISINFECTING APPARATUS.

The number of articles disinfected at the Station in Linacre by the apparatus known as " Washington Lyons' Patent " was 8,010. There is no doubt that this apparatus is a very efficient one, as it can furnish a heat of 250° by superheated steam. It was specially approved by Dr. Parsons (Local Government Board's Inspector) when purchased. The following is a list of the various articles disinfected during the year :—Mattresses, 601 ; beds, 474 ; bolsters, 423 ; pillows, 898 ; sheets, 649 ; blankets, 684 ; quilts, 663 ; carpets, 62 ; wearing apparel, 1,958 ; sundries, 1,598. There is a man specially appointed to take charge of the apparatus, and separate vans are used for conveyance of articles to and from the station. When the articles are exceptionally foul, or have been used by patients suffering from very infectious diseases, they are destroyed, and replaced or allowed for at the cost of the Sanitary Authority, in conformity with the provisions of the Public Health Act. A very considerable number of articles of this descriptive were destroyed during the outbreak of typhus, a large quantity of disinfectants were used, and a great number of houses were stoved and disinfected. Infected houses were disinfected with sulphurous gas by a trained staff free of cost. " Daley's Disinfecting Box," which is *used for disinfecting infected persons in their own homes*, was very largely made use of during the year, and was, in my opinion, of great assistance in checking the spread of typhus. Disinfectants also were largely used around infected premises, foul middens, drains, &c. I shall now proceed to the consideration of the seven principal zymotic diseases, and in the observations which I shall make respecting them I shall state all that *could be discovered with reference to the origin and extension of these diseases, together with the advice given and the measures taken to prevent their spread.* The first zymotic I will remark on is

SMALL-POX.

Since my last report the Vaccination Act of 1898, has come into operation, and I observe by the public newspapers that half a million certificates of exemption have been granted and issued to " conscientious objectors " up to the present time. I am entirely of the same opinion as every other medical man who has had any experience of vaccination and small-pox, that there is no doubt the new Act will be productive of incalculable mischief if it is not repealed. The head of the Medical Department of the Local Government Board, Sir Richard Thorne-Thorne, in his last annual report, draws attention to the continuous increase in the number of unvaccinated children, a multitude which has now assumed alarming proportions, and which he declares is preparing " the country for wide-spread epidemics of small-pox such as have been unknown to the present generation." Probably not one in a thousand now know what severe small-pox is, and there are a considerable number of medical practitioners who have never even seen a case of small-pox. I believe if these objectors to vaccination could only see a confluent case of this loathsome disease there would be very few who would not be vaccinated at once. Fortunately the people in Liverpool and Bootle are at present well vaccinated, but many of them are of a migratory character, and they are exceptionally exposed to the importation of small-pox, both from vessels arriving from foreign ports, and now particularly from their neighbours at home. In the town of Oldham alone no less than 25,000 exemption certificates have lately been granted to children. In accordance with the new regulations all the vaccination stations have been closed in Liverpool and Bootle, although all the Sanitary Authorities in Liverpool, including the Health Committee, the Hospital Committee, and the Medical Officer of Health, have protested against it, being all unanimous in their opinion that the closing of these stations are contrary to the best interests of the health of the city. I think I need hardly remark that my opinion entirely coincides with that of the Medical Officer of Health of Liverpool on this subject, and that the same dangers equally threaten Bootle, and I think it is advisable that the Health Committee in Bootle should take the same precautions that the Liverpool authorities may think it advisable to take, for, sooner or later, if this Act continues in force, an epidemic must arise, as vaccination and isolation are the only reliable preventives and safeguards against this very infectious disease. Another consideration which ought to have some weight in public opinion is the *cost* of an epidemic of smallpox, and this is well illustrated in the case of the epidemic in Gloucester. The Medical Officer of Health in Gloucester has stated that in the City and Rural Council the expenditure in hard cash was nearly £20,000, but it is calculated that in view of the complete disorganisation of trade in Gloucester for 9 months, the total loss to the city in all ways could not be put down at less than £150,000. I may state that I have mentioned these facts in order that we may be prepared to avert, if possible, such a great catastrophe as an epidemic of smallpox in Bootle. During the past year I have pleasure in testifying that no death occurred from this dreaded zymotic, and not even one notification was received.

MEASLES.

There was no death from measles in the first 5 months of the year, nor was the disease then prevalent, but it became epidemic in June, when 3 deaths were registered from it. In the last half of the year it was more or less prevalent, there being 1 fatal case in August, 2 in September, and 1 in December, the total number of deaths in the year being only 7, the number in 1897 being just double, viz., 14. This zymotic not being notifiable, the School Board Authorities are kind enough to report cases when the disease is prevalent. During June and the latter part of the year cases have thus been reported to me. The disease generally speaking has been of a mild character, and the number of fatal cases was 11·8 less than the average of the preceding 10 years, and the death-rate from it was only 0·13, which was 0·13 less than the average death-rate of the 33 large towns. With regard to this zymotic

I must repeat what I stated in my last Annual Report, that measles has in recent years caused more deaths than smallpox, scarlatina, diphtheria, or fevers, and is often not really exceeded by diarrhœa. In the last published Annual Report for Sheffield the Medical Officer of Health states that on an average no less than 200 children die every year in that city from measles. The principal cause of this mortality is that measles is too often considered to be a slight ailment, especially by the poor, and in consequence children are not properly looked after, and then are attacked by bronchitis or pneumonia, and die from these or other complications, and no child should be allowed to go to school from an infected house, as an epidemic of measles is very often observed to start and spread in the neighbourhood of one particular school. As I have before observed, persons should be instructed to abstain from work who reside in houses invaded by this disease, and whose occupations are, for example, such as hawking, milk selling, teachers in schools, dressmaking, tailoring, &c.

SCARLATINA.

The number of deaths from this zymotic during the year was 10, after deducting 5 deaths of persons from the out-townships. The number of notifications of this disease last year was 263, an increase of 18 over the number in 1897, but although there was an increase of notifications there was a decrease of 2 in the number of deaths. The percentage of deaths to notifications last year was 3·8, whilst in 1897 it was 4·9, and in 1896 it was 6·7. This decrease in the percentage of deaths, I think, is in a great measure owing to the larger proportion of cases which have been removed to Hospital each year since 1896. Thus the percentage of cases removed to Hospital in 1896 was 53·8 ; in 1897 the percentage was 54·2, and in 1898 it was 61·6. Table No. 2 shows the number of notifications of scarlatina in each month of the year, and Table No. 4 gives the number of deaths (including those from the out-townships) in the months in which fatal cases occurred. It will be noticed that no fatal case occurred in May, June, July, October and November (5 months). The number of cases of scarlatina admitted into hospital from Bootle was 162 in 1898, and that from the out-townships 76, making a total of 238. The number admitted from Bootle in 1897 was 133, and that from the out-townships 33, making a total of 166.

The number admitted from Bootle in 1896 was 160, and that from the out-townships 40, making a total of 200. It will thus be seen that the numbers admitted from Bootle and the out-townships in 1898 were larger than in either 1897 or 1896, particularly those from the out-townships. The number of deaths from Bootle cases (10) was 11·7 less than the average of the preceding 10 years, and the death-rate was 0·18, which was slightly in excess of that of the large towns, which was 0·14. The isolation afforded in the hospital is therefore of great advantage to the patients, but the chief value of it is to the general public, for it is almost impossible to prevent the spread of scarlatina in cottage property. The saving of expense to poor parents is also considerable, and after a case has been removed, the other children in the house (if not infected) need not be kept from school for more than a week. It is hardly necessary to state that every house is stoved and disinfected after the termination of a case, or after its removal to hospital, and all the clothing, bedding, &c., used by the patient is disinfected at the station by the Washington Lyon's disinfector.

DIPHTHERIA.

The number of notifications of this disease was 17, and the number of deaths 8, after deducting the death in hospital of a nurse from Waterloo. The notifications were one more, and the number of deaths 3 more than in 1897. The death-rate was 0·149, and was 0·156 less than the average of the 33 large towns. Of Bootle cases 4 were treated in hospital and 2 died, and of the remaining 13 cases treated outside the hospital 6 died. The nurse from Waterloo who died in the hospital was a young lady who had been attending to a fatal case in Walton Village, and died notwithstanding the greatest care and attention. Of the Bootle cases, all excepting 2 were children under 5 years of age.

MEMBRANOUS CROUP.

The number of cases notified as croup was only 4, and as 4 deaths were registered from it, I think it is again evident that several cases were not notified. I believe that many medical practitioners forget that membranous croup is a notifiable disease.

WHOOPING COUGH.

The number of deaths from whooping cough (including 1 death of a Bootle child in Walton Workhouse) was 28, which was just double the number in 1897. With the exception of 2 all the cases were of children under 5 years, and were 4·4 in excess of the average of the preceding 10 years. The death-rate was 0·523, which was 0·108 in excess of the average death-rate of the 33 large towns.. The disease was more or less prevalent during the year, but the largest number of deaths occurred in March and September. The months in which fatal cases occurred were January, February, March, April, August, September, November and December, when 2, 3, 7, 2, 3, 6, 1, 3 deaths, respectively, were registered. As the disease is much more fatal in infants and young children, the greatest care should be taken to prevent children under 5 years of age (particularly infants under 1 and 2 years of age) becoming affected : this, however, I am sorry to say is little thought of, or even known by parents of the poorer classes.

CONTINUED FEVERS.

Under this heading are included typhus fever, enteric (or typhoid) fever, and simple continued fever. As, however, there was no case notified from the last-named fever, nor a death registered from it, I shall make no remark with respect to it.

Typhus Fever—Unfortunately an outbreak of this very infectious fever occurred in Bootle during the past year. The first case occurred in April, and the subsequent notifications were as follows :—11 in May, 20 in June, 3 in July and 1 in August—total 36. The deaths registered from it were 7, viz., 2 in each of the months May, June and July, and 1 in August ; and the death-rate from typhus was the same as that from measles, viz., 0·13. As I made a long report to the Local Government Board on July 18 with reference to this outbreak of typhus, the remarks concerning it which I now think it is my duty to make, will in a great measure be identical with those included in my report to the Local Government Board. In the first place, I may state that during the time I have been Medical Officer of Health of this Borough, typhus has never been prevalent to any extent in Bootle, the outbreak I am now referring to being the most serious one I can recollect. During the 10 years 1888-1897 (inclusive) there were only 5 deaths registered, viz. :—3 in 1889, 1 in 1890 and 1 in 1892. In 1897 there were 7 notifications of this disease, but no death occurred, nearly all the cases occurring in a cellar in Miller's Bridge. I find in my Annual Report for 1889 that 3 fatal cases of this infectious disease were registered during the year, 2 occurring in the Linacre Hospital, and one a girl aged 19 years in Molyneux Street ; 13 cases were admitted into the Linacre Hospital during the same year, and of these only 4 were residents of Bootle, so that the isolation afforded by the hospital was of very great value to the out-townships. The cases from Bootle treated at the hospital were not notified to the Sanitary Authority as cases of typhus, but were diagnosed (I believe rightly) as such, by the resident Medical Officer (Dr. Edwards). The origin of the outbreak last year was, I believe, somewhat doubtful, but it must have been imported in my opinion. Of the 7 fatal cases, one was aged 13 years, and the others 28, 37, 43, 52, 57 and 62 years respectively. The disease thus appeared to be much more fatal in persons advancing in years, and Dr. Jones, the resident Medical Superintendent, was of opinion that nearly all the fatal cases were of persons showing signs of intemperance. It will be remarked that the first cases were 4 children named Kerrigan, and when seen by me they were in such a filthy condition and marked with flea bites that it was impossible to make an accurate diagnosis of the type of fever they were suffering from. I, however, considered them to be suffering from fever of a suspicious character, and I had them removed to the Isolation Hospital as soon as possible, and I also ordered that the filthy house should be cleansed and disinfected. Dr. Thos. Jones, the Medical Superintendent, afterwards informed me that although after having had them under his observation for some time, he was convinced they were cases of typhus, still he never saw any symptoms *distinctly* typical about them. The next case, however, was sufficiently distinct to cause me to notify it as a case of typhus, notwithstanding his dirty surroundings. With regard to the other cases I may state that with one exception *I visited all of them, and gave instructions for them to be removed to the Isolation Hospital at Linacre as soon as possible.* The exception named was an elderly man, who was too ill to be removed. The list of cases which I submitted to the Health Committee showed that there were 10 centres of infection, if one considers a certain street or locality as one centre. The following are the centres of infection, the numbers of the houses and cases, and the deaths in each centre—1st, Molyneux Street, Nos. 20, 34, and 36, 21 cases and 4 deaths ; William Henry Street, Nos. 2 and 21, 4 cases ; Bedford Road, No. 24, 1 case ; Derby Road, No. 197, 1 case, 1 death ; Johnstone Street, No. 11, 2 cases ; Balliol Terrace, No. 4, 2 cases; Seaforth Street, No. 39, 1 case; Canal View, No. 2, 2 cases, 1 death; Henry Street, No. 1, 1 case; Cross Street, No. 2, 1 case, 1 death; total *36 cases* and *7 deaths*. It will be noticed that Molyneux Street was by far the worst locality, and all the cases were from the south side of the street, adjacent to the Miller's Bridge houses, but all these localities are situated in Stanley Ward, and with the exception of Bedford Road, they are all practically in the same neighbourhood. I will now give a short account of the principal "measures taken by the Health Committee and myself for checking the spread of this disease." In the first place I gave instructions that all the infected bedding, which in nearly every instance was in a most filthy condition, should be burnt, in fact it was so filthy that it was absolutely necessary to burn it. All the other measures that in the usual routine are always adopted to prevent the spread of infectious disease, were thoroughly carried out under the supervision of Mr. Wm. Daley, the Chief Sanitary Inspector, and his staff. These measures include the disinfection of clothing, and all the other articles in the houses that are capable of being disinfected by the "Washington Lyon's disinfecting apparatus." After infected persons were removed to hospital, the persons remaining in the houses were themselves disinfected by being placed in "Daley's disinfecting box," which is a box somewhat like a vapour bath in shape, and thus exposed to the action of disinfectants. All the infected houses were thoroughly stoved (some repeatedly), twice as much sulphur being used as in ordinary cases. The following further precautions were also taken. The name and address of every person suffering from this disease, was sent (1st) to the Bootle Borough Hospital, (2nd) to the Clerk to the School Board, (3rd) to the Librarian of the Public Library. All the infected houses were visited every alternate day by a Sanitary Inspector, and by these systematic inspections several fresh cases were discovered, and in addition inspections were made by the sanitary staff of all the houses in the streets in the neighbourhood of the infected houses. By the instructions of the Chairman of the Health Committee, infected streets and other streets in the same localities were watered every day with a disinfecting solution. The other precautions taken were flushing of drains, thorough cleansing of yard surfaces and back passages, disinfecting of ashpits, &c. The Chairman of the Health Committee also gave instructions that a house in Pine Grove should be put into thorough repair, fitted with a bath and furnished with 12 beds, so that the poor inmates of infected houses could properly cleanse themselves and enjoy sleep, &c. until their own houses were again made habitable. By the adoption of all these measures I am glad to say the progress of the disease was thoroughly arrested, and no fresh case was notified after August 9th.

Enteric Fever—The total number of enteric cases notified during the year was 124, which number was 30 less than that in 1897. The total number of deaths registered was 25, but 8 of these were of persons from the out-townships who died in the Linacre Hospital, so that the total number of deaths of Bootle persons from this disease was 17, or 3 less than in 1897. Table No. 2 shows the number of cases notified in each month of the year, but the largest numbers notified were in June, August, September, October and November, when 11, 15, 21, 26 and 13 cases respectively, were notified. The number of deaths from this fever in the Isolation Hospital, of patients sent in from the out-townships was 8, which number was just double that from the out-townships in 1897; of these 8 deaths, 6 were from the township of Waterloo-with-Seaforth, 1 from West Derby, and 1 from Litherland. Of the 6 deaths from Waterloo and Seaforth, 3 died in August, 2 in September, and 1 in November; the death of the person from West Derby occurred in May, and that from Litherland in October. Excluding these 8 deaths, the number of Bootle persons dying from this disease in each month of the year was 1 in January, 3 in February, 2 in March, 1 in April, 1 in May, 1 in June, 1 in July, 1 in August, 1 in September, 4 in October, and 1 in November. As a rule this fever is most prevalent and fatal in Bootle in the autumnal months. Last year the largest number of notifications and the largest number of deaths were both in October. The total number of deaths of Bootle persons was 4·9 (or nearly 5) less than the average of the preceding 10 years, which is a satisfactory fact to note. The death-rate of enteric fever in Bootle (0·318) was slightly less than it was in 1897, and exceeded that of the 33 large towns by 0·123. The death-rate from "fevers" *i.e.* from the combination of typhus and enteric fevers was 0·448. The number of enteric cases admitted into hospital from Bootle was 74, that from the out-townships was 39, 29 of which were from Waterloo and Seaforth, 6 from Litherland, 2 from Crosby, and 1 each from West Derby and Garston. Thus the total number of enteric cases admitted was 113, or 9 more than in 1897. The number of cases admitted from Bootle was 10 less, and the number from the out-townships 19 more than in 1897. The total number of deaths from this fever in hospital was 17, 9 of which were of residents and 8 of non-residents, the total number (17) being 15 per cent. of the entire enteric cases admitted, which was 4·4 per cent. more than in 1897. The percentage of deaths from all the notified cases from Bootle (124) was 13·7, and was thus 1·3 less than the whole of the cases admitted into hospital. The percentage of the 9 deaths of Bootle persons to the 74 Bootle cases treated in hospital was 12·16. If the 9 deaths of Bootle persons dying in hospital are deducted from the total number of deaths (17) of Bootle persons dying from this fever, this will give a difference of 8 persons dying out of the 51 persons treated outside the hospital, and the percentage of these 8 deaths to the 51 cases treated outside is therefore 15·68 or 3·52 per cent. in excess of those treated in the hospital. The excess in the mortality outside is not so large as in 1897, but certainly sufficiently large to show the superiority of hospital treatment, notwithstanding the risk of removal, and the more serious character of a large proportion of the cases admitted. Of the 125 cases of enteric fever that occurred in Bootle, 24 were from Derby Ward, 63 from Knowsley Ward, and 38 from Stanley Ward. Of these cases 74 were removed to hospital, viz.: 11 from Derby Ward, 40 from Knowsley Ward, and 23 from Stanley Ward, and of the total deaths of Bootle persons (17) both in the hospital and outside, 1 was from Derby Ward, 3 from Stanley Ward, and no less than 13 from Knowsley Ward. It will therefore be seen that both the number of cases of this fever and the deaths therefrom in Knowsley Ward far exceeded those from both Derby and Stanley Wards. Although enteric fever may be said to be endemic in Bootle, still through the fact that it has to some extent decreased during the last two years, I hope that by the increased knowledge we now possess of its origin and propagation, we may be enabled to lessen still more its spread and consequent mortality. There are many facts connected with the organism called the "Typhoid Bacillus," which I think I ought to mention here, in order that the remedies for the decline and suppression of this fever may be known and adopted. In the first place it must be borne in mind that the soil most suitable for the growth and multiplication of the typhoid bacillus is one that contains a good deal of decaying animal or vegetable matter, and it is now, I think, conclusively proved that in such a soil the typhoid bacillus can live through the winter and grow and multiply in the warmer weather, and it has even been proved by Professor Delepine, that he found the typhoid bacillus in the filth-saturated soil of the floor of a privy-midden 13 months after the occurrence of a case of typhoid fever in the house to which the privy-midden was attached, although the midden had been emptied and disinfected on the notification of the case. To prevent the soil about dwellings, particularly around cottage property, becoming polluted, and therefore suitable for the propagation of the typhoid bacillus, the paving of the yards and passages with a pavement which really ensures impermeability is absolutely necessary to prevent the penetration of micro-organisms into the soil beneath. As privy-middens, containing organic and decaying refuse matter, thus provide the most suitable growing ground for this typhoid bacillus, they certainly should be entirely abolished and converted into w.c.'s. I find that Sir Richard Thorne-Thorne, the principal Medical Officer of the Local Government Board, and therefore, I think I may say, the highest sanitary authority, has publicly spoken very strongly on this subject, and I think I cannot do better than quote his exact words: they are as follows :—" The privy-midden generally sunk below the surface of the ground, often open to rainfall, always storing up decomposing excreta and refuse in close proximity to dwellings, provides almost every condition favourable to the production of nuisance, to the saturation of the soil with filth, and to the setting up and maintenance of those very conditions which seem to be essential to the vitality and multiplication of the typhoid bacillus. The fact that with our present knowledge, such a structure as the common midden-privy should not only still exist in our midst, but be clung to with a perverted tenacity, is in my opinion, the greatest blot which attaches to English sanitary administration at the close of the 19th century. Apart from its sanitary aspect, it is a system as degrading and ignoble as it is foul, and I trust the day is not far distant when we shall look back to it as a barbarism of the past." I think I may here mention that contaminated food is often the origin of this fever, and when an outbreak of this fever occurs and the usual causes of it have been investigated without finding the source of infection, it is well to know that the origin of this fever may be due to the diffusion of partially dried dust containing the typhoid bacillus, and that this germ-laden dust may be carried, under certain atmospheric conditions, by winds on to the surface of water, milk, potted meat, bread, cheese or other articles of food not usually subjected to any further process of cooking, and thus be introduced into the system. Milk, by its great power of absorption, is always looked after as being a likely source of infection, but it is clear that any food may thus be contaminated by aerial transmission of germs. In hot weather, I think there is no doubt that germ-laden dust might easily be blown into the interior of a cottage by a strong wind and thus contaminate the food. Dr. E. W. Hope, Medical Officer of Health of the City of Liverpool, mentions in his annual report for 1897 that the origin of an outbreak of enteric fever in one of the districts of the city was, after a long and careful investigation, found to be the eating of *ice cream* sold by an Italian vendor at a fair, and that 27 children who had eaten this ice cream were all infected with this fever, and it was moreover discovered that there was at the time of the fair a case of enteric fever in the Italian's house. I think also, there can be no doubt that oysters supplied from beds contaminated by sewage material, and eaten raw, may convey enteric fever to their consumers.

DIARRHŒA.

I have again to refer to this very fatal infantile disease, which every year carries off a large number of infants, and adds very considerably both to our zymotic and our total death rates. It is the most fatal zymotic disease we have to deal with in Bootle. Every year, as soon as the temperature of the sub-soil, 4 feet below the surface, rises to about 56° Fahr this disease commences to be epidemic. This fact was proved by observation last year when it became epidemic in June, when 5 deaths were registered from it, 4 of which occurred in the last week of that month, in July 33 deaths were registered, and in August 35. In September the disease began to decline, 26 only occurring. In October and November the deaths were 9 and 8 respectively. The only other deaths from this disease in the year were in February and March when 1 and 2 deaths, respectively, occurred. The total deaths in the year registered in Bootle numbered 114, a decrease of 39 when compared with the deaths in 1897, but an excess of 35·5 on the average of the preceding 10 years. Of the total number of deaths (114) 109 were of children under 5 years of age, a large proportion of which being infants under one year. The zymotic death-rate was 2·13 per 1000, and was 0·81 less than in 1897, but was 0·91 in excess of the average of the 33 large towns. During the prevalence of this disease everything that could be thought of as likely to check the disease was done, handbills containing instructions as to the proper diet for infants were freely distributed, and the homes of the infants were visited by a Sanitary Inspector in order to discover if any sanitary defects were observable. Although high earth temperature plays a very important part in the production of this disease, yet there is no doubt that an improper diet for infants is a very potent factor in the causation of a high mortality. Hot and dry weather is always productive of a larger mortality from this disease amongst infants, than is cool and wet weather. The reason of this is, that hot and dry weather produces a rapid fermentation and putrefaction of artificial food, cows milk, &c. and it is also in this weather that a micro-organism escapes from a heated soil, polluted with dead organic matter, and fastens on milk and other forms of food, which it further contaminates, and when taken into the body acts like a virulent poison in the system. This hot and dry weather also favours emanations from decomposing dirt and filth of various kinds, and also from sewers, necessitating the frequent flushings of house-drains, sewers, w.c.'s and surfaces of streets and yards. There is no doubt these flushings are of great sanitary value, and as we have such a good supply of water they ought to be and are thoroughly carried out in a systematic manner. It is well-known that the mortality from this disease of infants from breast milk is very small, but that amongst children fed on artificial foods between the ages of 3 and 6 months, the mortality is six times as great, and children under 3 months fifteen times as great as infants fed on breast milk. Another important matter ought also to be mentioned, although it is a repetition of what I remarked on last year: in my opinion, not only should the yards, passages and soil around dwellings have an impermeable pavement to prevent organic pollution, but every *house* should be provided with an impermeable basement to prevent *ground air* entering the basements of houses, as the aspirating power of the warm air of the house can draw up air out of the ground, and if this ground air is fouled either from defective drains or from more or less polluted soils, it may contaminate the house and everything in it, including food. I believe, therefore, that the basement of every house and cottage should be built on a bed of cement, as, without much expense this would exclude both ground air and water, and make the air of the house or cottage much purer, drier, and more safe for the inmates. As I believe the nursing and feeding of infants during the time that diarrhœa is epidemic is so very important, and the mothers of poor children are often so ignorant, that they not only give frequently sour milk out of dirty bottles, but often most improper food of various kinds, the employment of Lady Sanitary Inspectors with a proper knowledge of these matters would be a most important aid in guarding helpless infants from these dangers. I may mention that these lady inspectors have been employed in Liverpool, Birmingham, and other places, and found to be most useful in giving advice, and otherwise assisting the mothers of young infants, and also in giving advice, etc. in other cases, such as for instance in cases of typhoid fever, where an error in diet might cause a relapse and probably the death of the patient. These lady inspectors have been eulogised very much in both the cities I have mentioned (the Mayoress of Birmingham has I understand also actively assisted), and I think it would be money well spent to give them a fair trial in Bootle. I think also I ought to mention here, that thanks are certainly due to Mrs. Gibson, of Merton Grove, who *voluntarily* sent two of her trained nurses during the year to assist in district nursing, which they performed in an efficient manner.

INFLUENZA.

This disease was again prevalent in March, April, May and June, when 2, 2, 1 and 2 deaths respectively were registered. There was also one death registered from this disease in December, when it again became prevalent. These deaths were registered directly from influenza, but there is no doubt when this disease is prevalent that there is an epidemic influenza in operation which causes a greater fatality to diseases of the pulmonary organs than there otherwise would be. Probably also many of the deaths from bronchitis and pneumonia were really complications of influenza.

PUERPERAL FEVER.

There were only 2 notifications of this very contagious and fatal disease during last year, but there were 2 deaths from it. There is often a great tendency amongst poor people and midwives to conceal the existence of this fever, and consequently the disease is not notified until death threatens.

ERYSIPELAS.

There were 41 cases of this notifiable disease notified during last year, but there were only 2 deaths registered from it. In 1897, 2 deaths also were registered from it, but 67 cases were notified.

OTHER ZYMOTICS.

There were only two deaths from zymotic diseases of minor importance to those already referred to, and these were due to rheumatic fever. There were no deaths registered either from syphilis or pyæmia.

DISEASES OF UNCERTAIN SEAT.

The deaths from these diseases numbered 45, all except one being of persons above 5 years of age. The total number was 5 more than in 1897, and of this number 35 (an increase of 10) were of persons who died from cancer, and it would indeed be a blessing if some measures could be discovered to prevent and cure this very painful and dreaded disease, such as are being done in tubercular diseases.

DISEASES TUBERCULAR.

The prevention and cure of tuberculosis is decidedly the great question of the day, and its importance cannot be exaggerated. To be enabled to prevent and even cure a disease that was considered only a few years ago to be incurable is undoubtedly a great advance in medical science, and as H.R.H. the Prince of Wales recently presided at a most influential meeting at Marlborough House, supported by some of our most eminent physicians, including Sir William Broadbent, in order to discuss the measures to be taken for the prevention of this most fatal disease, it is now certain that energetic steps will be taken to prevent the contraction of this disease, and to promote the recovery of those suffering from it. During last year the total number of deaths registered in Bootle from this class of disease was 97, this number being 22 less than that registered in Bootle during 1897. Of these 60 (a decrease of 17) were due to *phthisis*, 29 to *tabes mesenterica*, 6 to *tubercular meningitis*, 1 to *tubercular peritonitis* and 1 to *struma*. There were also 15 deaths from phthisis of Bootle persons dying in the workhouses, but 1 person died from phthisis in Bootle, "not belonging thereto," so that the total number of deaths from phthisis of Bootle persons during 1898 ought to be really 74, which is a decrease of 22 when compared with the deaths from phthisis in 1897. The death rate in Bootle from phthisis in 1898 was 1·38. It will thus be seen that there was a decrease in the number of deaths from tubercular diseases in Bootle in 1898. In nearly all the cases in which tuberculous infection obtains an entrance into the human body, the lungs and alimentary canal are the principal channels through which this is effected. The great preponderance of pulmonary phthisis in adults may be, and undoubtedly often is, produced by inhalation of the tubercle bacillus in infected dust, in rooms in which the dried sputum has been deposited by consumptive patients, or by inhaling it in other ways, and is therefore the most important mode of infection, and points to the necessity of taking active means to prevent the infection from being spread in this manner. Without desiring in any way to lessen the importance of this mode of infection, the fact that tuberculosis in infants and young children is in the majority of affected persons, either a general disease with, in many cases, a special localisation in cerebro-spinal membranes, or a disease affecting the intestines and mesenteric glands, affords good grounds for the belief that the infection in *childhood* at least finds its entry in a very large proportion of cases by way of the alimentary canal. But although the way of entry of the infection in adults is principally through the inhalation of the tubercle bacillus into the lungs, yet the ingestion of food containing the active infective agent of tuberculosis must be regarded as dangerous *at any* age, and is certainly a source of great danger in childhood. The fact that deaths from phthisis in adults have decreased of late years, but that the deaths of children from "consumption of the bowels" (tabes mesenterica) have increased according to Sir R. Thorne-Thorne to the extent of 21 per cent, is, I think, a proof that this increased mortality in childhood is largely caused by diseased milk, as milk is the principal food of children, who are usually attacked in the alimentary canal, and there is no doubt that the milk of a tuberculous cow, when the disease has reached the stage in which the udder is involved, does contain the tubercular bacillus in a state of quite exceptional virulence. Seeing then that diseased milk is one of the principal causes of tuberculosis in children, it becomes absolutely necessary that every effort should be made that no diseased milk should be allowed to be sold. Milk can be rendered harmless by boiling, but this really ought not to be necessary, as milk ought to be obtained from cows free from tuberculous infection, and boiling does not protect against tuberculous cream, butter and cheese. To obtain milk free from infection can only be effected by making it compulsory that all cows supplying milk to the public should have been proved to be free from tuberculosis by the tuberculin test. All institutions receiving children, and also all hospitals, workhouses, asylums, &c. in making contracts for the supply of milk and meat should be recommended to have special clauses for the supply of milk from non-tuberculous cows, and also special clauses in meat contracts to prevent the supply of tuberculous meat. It has been also recommended that bacteriological laboratories should be provided at the public expense by Sanitary Authorities, to furnish a pathological proof of the presence of the disease when it exists, and thus provide additional facilities for a complete system of dealing with tuberculosis.

Another important matter is the systematic inspection of dairies and cowsheds, in order to provide sufficient air, light, ventilation and cleanliness. As a proof that this is especially necessary, I may mention the fact that whilst the milk in Liverpool has been found to contain only a small percentage of tubercle bacillus in it, that from shippons in the country districts have contained a *very large* per cent of the tubercle bacillus. The reason for this great difference is that in Liverpool the regulations with regard to site, construction, cubic and floor space, lighting, ventilation and cleanliness, are strictly enforced, whereas in the country districts these regulations are very often not looked after properly. In my opinion also Urban Communities have a right to know the conditions under which the milk consumed by them is produced, and to satisfy themselves that milk brought from outside into their districts is not derived from cows diseased in such a manner as to convey an infective quality to the milk. This principle appeared a sound one to the members of the last Royal Commission on tuberculosis. Therefore when on examination of a sample of milk taken at a railway station, consigned from a farm outside a City or Borough, is found to be adulterated and to contain the infection of tuberculosis, a competent Veterinary Surgeon should be instructed to go to the farm, examine the cows, select those from which the diseased milk is derived and cause the farmer to remove the affected cows, and if he fail to do so, to take legal proceedings against him. I think it is only fair and right that such a course of procedure should be adopted in order to protect the inhabitants of Cities and Boroughs. In Bootle systematic inspections of the dairies and shippons are made by our Sanitary Inspectors, who are well qualified for this work. In my opinion the air space allowed in cowsheds should be 800 cubic feet per cow, and that any *person* suffering from consumption should be excluded. The following additional measures to be enforced by Sanitary Authorities for the prevention of tuberculosis are (1) prevention of overcrowding in houses, bed-rooms, work-rooms, &c., (2) provision of sanatoria for the separate maintenance and treatment of consumptive patients, (3) disinfection of rooms, houses, clothing, bedding, &c. which have been used by consumptive patients. With regard to disinfection of bed-rooms after the death of a person from tubercular disease, in only one instance could I get this very necessary preventive measure carried out, the owner of one house actually ridiculing the idea when it was proposed to him, although it was explained to him that the disease was infectious, and that it really was to his own interest that the room should be disinfected. Now although many (especially owners of property) may consider that the measures I have advocated are too stringent and expensive, yet, when it is calculated that in the British Islands at least one tenth of all the deaths which occur are caused by tuberculosis, and that in England and Wales alone about 40,000 deaths occur every year from tuberculosis of the lungs (phthisis), and nearly 20,000 deaths from other forms of tuberculosis, in my opinion no measure that can afford any assistance in the extirpation of this disease should be neglected, particularly when it is calculated by the Registrar General that by improved sanitation the death rate from consumption has been reduced during the last 50 years to one half of what it was before.

DISEASES OF THE BRAIN, SPINAL MARROW, &c.

The number of deaths registered from this class of diseases in 1898 was 85. The total number was 13 less than in 1897, and the number of children under 5 years (35) was 16 less than that in 1897. The number of infants registered under the unsatisfactory term of "convulsions" was 21, this being 9 less than the number in 1897.

DISEASES OF THE HEART AND BLOOD VESSELS.

The number of deaths registered from these diseases in Bootle was 45, which number exceeded that in 1897 by 7. There were, however, 11 deaths of persons belonging to Bootle occurring in the workhouses, but 2 persons died in Bootle from these diseases, "not belonging thereto." The difference of these numbers would thus add 9 to the 45 deaths mentioned.

DISEASES OF THE LUNGS AND AIR PASSAGES.

The total number of deaths from these diseases registered in Bootle in 1898 was 230, this number including 3 from laryngitis and 2 from "Hœmoptysis." The total number was 3 less than that in 1897. There were however 29 Bootle persons who died in the workhouses "outside the district" from these diseases, and 2 persons died in Bootle "not belonging thereto," the difference of these numbers (27) ought to be added to the 230 registered in Bootle, making the total mortality from these diseases to amount to 257, which number was an increase of 5 over that in 1897. Of the total number 125 were children under 5 years of age.

OTHER DISEASES.

The deaths from "other diseases" in 1898 when compared with those in 1897 were as follows :—Diseases of kidneys, bladder, &c., 16, a decrease of 4 ; diseases of uterus, child birth, &c., only 1, a decrease of 4 ; diseases of stomach, liver, &c., 63, a decrease of 1. In addition 5 deaths were registered from diseases of bones, 6 from diseases of skin, cellular tissue, &c., 1 from diseases of eye, 5 from malformations, 31 from premature birth (an increase of 17), 22 from atrophy and debility, and 26 from old age and natural decay. The deaths of 20 persons (an increase of 2) were registered during the year, aged 80 and upwards, viz. :—1 in January, 1 in February, 2 in April, 3 in May, 1 in June, 1 in July, 4 in September, 2 in October, 3 in November, and 2 in December. Of these 20 old persons 4 died aged 80, 4 aged 81, 1 aged 82, 2 aged 83, 1 aged 84, 1 aged 85, 3 aged 87, 1 aged 88, 1 aged 89, 1 aged 92 and 1 aged 96. In addition to these old persons who died in Bootle, 2 old Bootle persons died in Walton Workhouse 1 aged 84, and 1 aged 88.

DEATHS THROUGH VIOLENCE, &c.

Sixty-eight deaths through *violence, &c.*, occurred during the year, being a decrease of 4 when compared with the number from the same cause in 1897. In addition to these deaths, 6 deaths were registered from "natural causes" the precise cause not being shown. Of the 68 deaths 18 were of children under 5 years of age, and the causes of these deaths were as follows :—30 (a decrease of 4) were due to *injuries* either from accidents or negligence, 11 were from "*drowning or effects of immersion*," 13 from "*burns*" or "*scalds*," 6 were from "*suffocation*," (overlain), 4 were from "*suicide*," 1 from "*mal-nutrition*," 1 from "*excessive drinking*," and 2 persons were "found dead," the cause not being clearly proved. During the year 30 deaths (a decrease of 2 were registered "*uncertified*" by any medical practitioner, and of these 14 were children under 5 years of age. The percentage of these deaths was a little under 3, and was therefore nearly the same as in 1897.

INQUESTS.

The number of inquests held during the year was 79, an increase of one when compared with the number in 1897. The number of inquests in each month was as follows :—January 5, February 6, March 8, April 5, May 5, June 4, July 4, August 7, September 9, October 8, November 8, and December 10. It will thus be noticed that about 7·8 per cent of the deaths in this borough formed the subject of legal inquiry.

HORSE AMBULANCE FOR ACCIDENTS, &c.

This ambulance carriage has continued its useful work during the past year, and the rapid manner in which it is turned out after intelligence of any accident has been received, and the expeditious and yet careful way in which an injured person can be conveyed to the hospital, reflect great credit on the members of the Fire Brigade, by whom it is worked, nearly all of whom have passed the examination and become members of the St. John's Ambulance Association. There is no doubt this carriage has saved a great deal of suffering and probably the lives of injured persons. Mr. Roberts, the Superintendent of the Brigade has sent me the following list of ambulance cases conveyed to the Bootle Borough Hospital during the past year. Calls received between 6 a.m. and 6 p.m. 359; between 6 p.m. and 6 a.m, 147. Total 506. This number is an increase of 61 when compared with the calls in 1897. The accidents and urgent cases were as follows:—28 compound fractures, 88 simple fractures, 111 wounds, 41 "fits," 18 scalds and burns, 21 immersion cases, 8 cases of poisoning, 164 other injuries, 17 persons found to be dead on arrival at hospital, 5 private cases, 5 dislocations. Total 506.

PUBLIC BATHS AND GYMNASIUM.

The Report of the Manager of these Baths, Mr. McMahon, is as follows:—

Though the number of the bathers at the Baths during the year ended in December last, was less than the number that attended during the previous year, yet the baths continue to be much appreciated by a very large number of the inhabitants of the borough, as is indicated by the fact that 68,199 people used them during the year. The summer of last year (1898) was devoid of the heat which frequently prevails in summer, and accordingly many who use the baths more as a luxury than for constitutional benefit seldom attended. The salt water supplied to the baths continues to be of excellent quality. "Life Saving Drill" is now extensively practised at these baths, and many of the police force and others have been awarded certificates and medallions for efficiency in this drill. The children of the elementary schools of the borough, under the Committee's special arrangements, make good use of the baths. The attendances at the baths during each quarter of the year is shown in the following tabulated statement :—

Quarter ended	March ...	Males	3,240	Females	91	Total	3,331
,,	June ...	,,	25,090	,,	3,195	,,	28,285
,,	September	,,	27,169	,,	4,614	,,	31,783
,,	December	,,	4,585	,,	215	,,	4,800
	Totals	Males	60,084	Females	8,115	Total	68,199

Gymnasium—The conversion of the large plunge bath (male) 100 feet by 30 feet in size, into a Gymnasium for the winter season, affords a capital opportunity for the young people of the borough to find healthy recreation and enjoyment. Several parents of the children attending the gymnasium have told me of the decided benefit their children have derived from the drill and gymnastic exercises, and many of the adult members have also acknowledged the beneficial effects derived from attending the gymnasium. The numbers enrolled in the several classes from October to December, 1898 were : Gentlemen 83, boys 37, ladies 203, school children 176, making a total of 499. (signed) T. MacMahon, Manager. I have submitted the Manager's report in extenso because I think it shows conclusively the benefit and enjoyment derived from these baths by the public.

SANITARY WORK.

A very large amount of sanitary work was accomplished during the year, as Table No. 5 containing the Sanitary Inspector's Report fully shows. It will be noticed that 434 houses were disinfected, and in each case notice was sent to the owner to cleanse the infected house. 22 of these houses were cleansed by the Local Authority under the Infectious Diseases (Prevention) Act, 1890, the owners having failed to comply with the notices served upon them. This work entailed 1036 inspections. I may mention that when a case of infectious disease is notified, an inspector visits the house as soon as possible, and if the case is not properly isolated he recommends that it should be removed to hospital. He also makes a thorough examination of the house and premises, also the drains, &c., and directs that disinfectants should be taken to the infected house. He also gives information to the School Board Authorities if children are attending school from the infected house, to the Librarian of the Free Public Library, and the House Surgeon of the Bootle Borough Hospital, and ascertains the source of the milk supply. Altogether I think nothing of any importance has been omitted in preventing the spread of infection. The epidemic of typhus that broke out in the summer of last year entailed a large amount of dangerous work on the sanitary inspectors and staff, in the removal of infected bedding, clothing, &c. I think the efficient manner in which this work was carried out, was proved by the fact that this serious outbreak of a very infectious disease was completely arrested in a comparatively short time.

SYSTEMATIC INSPECTIONS.

Systematic house-to-house inspections have been carried out during the past year, the result of which will be seen in Table 5. I have accompanied the Inspectors in a large number of these inspections, and those which I have more especially made have been inspections with regard to sanitary defects in the cottage property, noting principally the condition of the privy-middens, between 30 and 40 of which have been converted during the year, and these conversions are still going on. I also made very important inspections, with the Sanitary Inspectors, at the time of the outbreak of typhus, and also after the outbreak, with the view of ascertaining if any of the property which was infected was unfit for human habitation, thus:—I made a house-to-house inspection of the Miller's Bridge property, and also all the houses in Molyneux and Matthew Streets; I have also visited and inspected all the bakehouses in the Borough, and some of the workshops and cowsheds. The results of these inspections I have duly reported to the Health Committee at their fortnightly meetings.

REMOVAL OF EXCRETA AND REFUSE MATTER.

The Borough Engineer, Mr. J. A. Crowther, C.E., has supplied me with the following information:—During the year 1898, the number of ashpits emptied were 41,730. 12,501 tons of refuse matter have been burnt in the "Destructor." Manure sent from wharf, 166 boat-loads, containing 8,300 tons. The quantity of refuse matter, consisting of contents of dry ashpits and shop garbage of all kinds, burnt in the Destructor, exceeded by about 450 tons that destroyed in 1897, and is in my opinion an invaluable way of disposal of it, particularly as the "clinkers" remaining after the cremation are being utilised in making concrete flags for paving.

NUISANCES.

During the year 2,955 nuisances were reported to exist in private houses, of this number 333 were inspected by special request of the tenants. The nuisances dealt with include defective drainage, w.c.'s, sinks, bath and wash-basin waste-pipes, roofs, downspouts, yard surfaces, ventilation, filthy houses, accumulations of filth, manure and other refuse, stagnant water, fowls and animals improperly kept. Re-inspections of these premises were made, and the necessary steps taken to abate the nuisances. Owners were summoned in 15 instances for non-compliance of notices.

COMMON LODGING HOUSES.

The Chief Sanitary Inspector reports that the number of these houses registered in Bootle under the Public Health Act was 215. The number of houses newly registered during the year was 25, but there were 30 houses vacated by their keepers. The number of houses now on the register is 170. The Inspector also reports that the number of day and night inspections was 2,138, and that the number of infringements of the bye-laws was 212, of which 2 were brought before the Magistrates.

INSPECTION OF DAIRIES, COWSHEDS, AND MILK SHOPS.

The number of persons on the register for the sale of milk during the year was 132. The number of inspections made was 320. The number of notices served for defects found to exist was 84, and the number of dairies in which fever occurred during the year was 2. There is no doubt that tuberculous disease of the cow is associated with badly-ventilated, dark, dirty and insanitary shippons, and that a diseased cow may infect other animals by means of its excretions, and if these excretions, when dried, obtain an entrance into the milk, they will also cause the milk to be diseased. It should also be remembered that as diarrhœa is, as a rule, the most fatal zymotic disease we have to deal with in Bootle, that, as an assistance to its prevention, it is most important that shippons should be kept scrupulously clean, so that dust, dirt and other impurities should not be allowed to be absorbed by the milk, which should be always sold in a clean and pure condition. The importance therefore of insisting that all the regulations with respect to dairies and shippons (especially the light, ventilation, cleanliness and air space) should be rigorously enforced cannot be exaggerated, and if a cow is found to be diseased, especially when the udder is tuberculous, it should be removed immediately from the cowshed.

INSPECTION OF CATTLE SHIPS AND CANAL BOATS.

These inspections are made by Assistant Inspector Owens. The inspections of cattle ships are more particularly important, because if the cattle-fittings are not properly cleansed and disinfected, and are sold to breeders of cattle in the interior of the country, cattle disease might thus be introduced amongt the flocks and herds and thus destroy a number of animals. During the year 446 of these inspections were made. As the Leeds and Liverpool Canal runs through this Borough, inspections of canal boats have to be made. During the year 136 inspections of canal boats were made, and 19 infringements of the regulations were reported.

FOOD INSPECTION.

During the year the seizures of unsound food were not very important, they were really only 4 in number, the total amount being 23½ lbs. The particulars were as follows :—

(1) 4¼ lbs. of unsound tripe —Order made for destruction.

(2) 6 lbs. of unsound fruit and vegetables.

(3) A quantity of unsound food was destroyed by consent of the owners, without the formality of a magistrate's order.

There were also 5 cheeses weighing 364 lbs., destroyed by the Corporation with the consent of the owners.

WORKSHOPS.

The duty of visiting and inspecting the workshops in this Borough is intrusted to Inspector McCulloch. I consider the inspections of workshops very important and responsible, for if the regulations are not enforced, especially with regard to ventilation, cleanliness, overcrowding, &c., the persons employed would be very liable to contract tuberculosis or other diseases. The number of workshops on the register last year was 91. The defects reported were 23.

INSPECTION OF BAKEHOUSES.

On the 27th September I made my annual inspection of the bakehouses in this Borough, and was accompanied by Inspector McCulloch. We inspected 40 bakehouses but found that 8 were not in use. 17 of them required lime-washing, and in 12 of them the floors were dirty and "caked" with flour and required scraping and cleansing. In a number of these bakehouses we found there were drains which had an opening within the bakehouse, which is contrary to section 15 of the Factory and Workshop Act, 1883, and in one of them we found there was a dog kept. The number of notices sent in reference to the cleansing of these bakehouses was 21, and the number of notices served on account of sanitary defects was 26. All these illegalities have since been remedied. In my opinion every bakehouse should be situated on or above the ground level.

WATER SUPPLY.

The Bootle Wells which formerly supplied nearly the whole of Bootle have been permanently closed for nearly three years, and it seems to me a pity that some use cannot be made of such a large quantity of water. Table No. 8 gives the quarterly analysis of the soft and hard waters supplied by the Liverpool Water Committee to Bootle. The water supplied to us is derived principally from Vyrnwy and Rivington, these two soft waters being mixed with a small proportion of hard water from three of the Liverpool Wells. The present water supplied to Bootle is a constant, abundant and uniform supply, and as samples of it are regularly analysed every quarter, I believe it to be pure and wholesome, and well suited for domestic purposes. A good supply of water such as we have in Bootle, is invaluable both for drinking and also for sanitary purposes, such as flushing, cleansing of yard surfaces, &c.

FLUSHING OF DRAINS, SEWERS, &c.

Mr. Daley, the Chief Sanitary Inspector, informs me as follows:—During the past year the number of drains flushed was 13,543. Of these, 13,237 were of private houses, the remainder being 67 of public institutions, factories, &c., and 239 of main drains at request of Borough Engineer. The average number of premises flushed per month was 1,128. For the first four months of the year (January, February, March and April), the whole of the flushing was done with a barrel-cart, which was supplied from the salt water mains. On the 22nd April the Corporation commenced to flush direct from the mains, and since that time the number of premises flushed was 11,204, or an average of 1,400 per month, or taken for the 12 months will be 16,800 per year. The number of inhabited houses in the Borough at present is between 9,000 and 10,000, thus it will be practicable for the present flushing gang to go round the Borough in very little over 7 months. There are at present three men permanently engaged in the work of flushing.

SANITARY CONVERSIONS.

I am sorry to say not much real progress has been made in these conversions during the past year, only between 30 and 40 conversions into w.c.'s having been effected. In view therefore of the importance of proceeding more expeditiously in the conversion of privy-middens into w.c.'s, the Town Council have issued instructions that entire blocks of property should be dealt with at one and the same time. It is believed that there will be no general objection to this plan on the part of the property-owners if the Corporation agree to pay half the cost of the conversions. This, the Corporation are prepared to do, but the contributions will not be made as a matter of course, but after due inquiry and consideration of the circumstances.

ADULTERATIONS.

The Chief Constable (Mr. James Cumming), and Inspectors Leslie and Ferguson have the carrying out of the Food and Drugs Act during the year. Table No. 7 gives the number of samples taken and sent to the Public Analyst and also the description of the food, &c. submitted for analysis, the result being that out of 105 samples taken, 20 persons were proceeded against, 14 being convicted and 6 discharged. Of the 20 persons who were proceeded against, 17 were for adulterated milk, and the other adulterations were 2 for butter and 1 for vinegar. The 6 persons discharged were for milk cases. One person however was proceeded against under the Margarine Act and was convicted.

THE DERBY PARK AND RECREATION GROUNDS.

The new Derby Park continues to improve in appearance and beauty every year. New flower beds have been laid out, and considerable additions have been made to the conservatories, hot-houses and green-houses. The Parks Committee have also provided many hundreds of trees for the Parks, Recreation Grounds and open spaces in the Borough, and have laid down new Bowling Greens, Lawn Tennis Grounds, &c. which have been and are highly appreciated by the public. In the North Recreation Ground besides the games mentioned, accommodation has been found for players of football, cricket and other sports, and in the South Recreation Ground the Bootle Cricket Club Ground is situated, this club being one of the best and well-known around Liverpool. In my opinion the providing of Parks and Recreation Grounds such as we have in Bootle, is largely conducive to the general health, muscular development and physical stamina of young persons, besides affording them wholesome and enjoyable recreation.

SANITARY PROCEEDINGS AND ADVICE, &c.

In accordance with Act 14, Section 4, of the Local Government Board's Order, I have now briefly to refer to "Proceedings relating to conditions dangerous or injurious to health, in which I have taken part or advised" the Sanitary Authority during the year. I have regularly reported every fortnight during the year on the vital statistics of the borough, the sanitary requirements and the work accomplished, together with special reports when necessary. As I think I have fully commented on the "sanitary proceedings" in the previous part of this annual report, it will be unnecessary for me to make any further remarks on this subject. I am, however, glad to be able to report a slight diminution in the death-rate of last year when compared with that of 1897, the death-rate in 1897 being 20·32, whilst that of last year was 19·71 per 1000. I may mention here, however, that on 3rd October last, I brought under the notice of the Health Committee a copy of a report to the West Derby Guardians by Dr. Nathan Raw, Medical Superintendent of the Mill Road Infirmary, Liverpool, on the open air treatment of tuberculosis in Sanatoria, and also a letter from Mr. Cleaver, Clerk to the Guardians, on this subject. Dr. Raw's report was a short, but very able and lucid one, and pointed out not only the danger which persons suffering from tuberculosis are to others through the infectious character of the disease, but also the new mode of treatment, which from the accounts in the medical papers has met with considerable success. I may say that in my report to the Health Committee, I fully supported the opinion and recommendation of Dr. Raw on this subject. The Health Committee have since informed the Guardians that "they viewed with favour the suggested establishment of a hospital for the treatment of tuberculosis, but they considered that owing to the comparatively small area of this borough, the provision should be undertaken by the Guardians rather than by the Bootle Council." I think another matter may be mentioned here, viz. that on the 12th December I made a long report to the Health Committee in reference to a house-to-house inspection of the larger block of houses on the road leading to Miller's Bridge, and also the houses in Molyneux Street and Matthew Street, which inspection was made on the 25th November. I recommended that the owners should be ordered to place the whole of these houses in a proper state of repair.

(signed) R. J. SPRAKELING,
M.R.C.S. Eng. L.S.A. Lond.
Medical Officer of Health.

22nd March, 1899.

A. *TABLE OF DEATHS during the year 1898, in the Urban Sanitary District of Bootle (County Borough) ; classified according to* DISEASES, AGES *and* LOCALITIES.

NAMES OF LOCALITIES adopted for the purpose of these Statistics; public institutions being shown as separate localities. (*Columns for Population and Births are in Table B.*)	MORTALITY FROM ALL CAUSES, AT SUBJOINED AGES.								MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.																					
													FEVERS.																	
	At all ages.	Under 1 year.	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards		Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid	Continued	Relapsing	Puerperal.	Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhœa & Dysentery	Rheumatic Fever.	Phthisis.	Bronchitis, Pneumonia and Pleurisy.	Heart Disease.	Influenza.	Injuries.	All other Diseases.	Total.
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
WARDS. Derby	199	63	33	7	10	50	36	Under 5		2		1							1	1	4	26		4	25				32	96
								5 upwds			1						2					1	2	13	24	7	4	4	45	103
Knowsley	337	144	64	12	11	72	34	Under 5		1	1	2		1						4	12	45		1	57			2	82	208
								5 upwds						5					1			3		16	31	12	1	4	56	129
Stanley	339	119	55	13	8	104	40	Under 5			3	1								2	10	36		1	36			7	78	174
								5 upwds			1		1	2							1	1		22	45	14	3	5	70	165
PUBLIC INSTITUTIONS: Bootle Borough Hospital	72	1	9	7	7	46	2	Under 5														1			1			7	1	10
								5 upwds																2	5	10		25	20	62
Corporation Hospital for Infectious Diseases	41	1	12	13	2	13		Under 5		8	2			2															1	13
								5 upwds		4	1		6	15										1					1	28
Mortuary	17	1	1	1	1	10	3	Under 5														1			1					2
								5 upwds																		2		12	1	15
TOTALS	1005	329	174	53	39	295	115	Under 5		11	6	4		3					1	7	26	109		6	120			16	194	503
								5 upwds		4			7	22			2		1		1	5	2	54	105	45	8	50	193	502

The subjoined numbers have also to be taken into account in judging of the above records of mortality.

Deaths occurring outside the district among persons belonging thereto.	105	3	5	1	6	62	28	Under 5													1	1			3				3	8
								5 upwds																15	26	11			45	97
Deaths occurring within the district among persons not belonging thereto	55	1	6	8	5	33	2	Under 5		3												1			1			1	1	7
								5 upwds		2	1			8										1	1	2		21	12	48

R. J. SPRAKELING, *Medical Officer of Health*,
22nd March, 1899.

Area and Population of the District or Division to which this Return relates—
Area in Acres, 1,590. Population (Last Census) 49,217. Estimated (1898), 53,500.
Death Rates—General 19·71 per 1,000. Infants 183 per 1,000 Births Registered.

B. *TABLE OF POPULATION, BIRTHS, AND NEW CASES OF INFECTIOUS SICKNESS, coming to the knowledge of the Medical Officer of Health, during the year 1898, in the County Borough and Urban Sanitary District of Bootle; classified according to Diseases, Ages and Localities.*

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shewn as separate localities.	Population at all Ages.		Registered Births.	Aged under 5 or over 5.	New Cases of Sickness in each Locality, coming to the knowledge of the Medical Officer of Health.													Number of such Cases Removed from their Homes in the several Localities for Treatment in Isolation Hospital.												
	Census 1891.	Estimated to middle of 1898.							Fevers.													Fevers.								
					Smallpox.	Scarlatina	Diphtheria	Membranous Croup.	Typhus	Enteric or Typhoid.	Continued	Relapsing	Puerperal	Cholera.	Erysipelas		Totals.	Smallpox.	Scarlatina	Diphtheria	Membranous Croup.	Typhus	Enteric or Typhoid	Continued	Relapsing	Puerperal	Cholera	Erysipelas	Other Dis.	Totals.
(a)	(b)	(c)	(d)	(e)	1	2	3	4	5	6	7	8	9	10	11	12	13	1	2	3	4	5	6	7	8	9	10	11	12	13
Wards.																														
Derby	49,217.	53,500.	1,772.	Under 5		40	1			1					2		44		24				1						1	26
				5 upwds.		70	2			23			2		12		110		45				10							55
Knowsley				Under 5		31	2	2		4					1		40		17	1			3							21
				5 upwds.		65	1	1		59					12		138		46	1			37							84
Stanley				Under 5		15	5	1	3	1					1		26		7	1		3	1							12
				5 upwds.		42	6		32	37					12		129		23	1		33	22							79
Totals in Bootle	49,217	53,500	1,772	Under 5		86	8	3	3	6					4		110		48	2		3	5						1	59
				5 upwds.		177	9	1	32	119			2		37		377		114	2		33	69							218
Waterloo-with-Seaforth				Under 5															9				2							11
				5 upwds.															45				27							72
Litherland				Under 5															6											6
				5 upwds.															9				6							15
Crosby				Under 5															3											3
				5 upwds															4	1			2							7
West Derby				5 upwds																			1							1
Garston				5 upwds.																			1							1
Totals from the out-townships				Under 5															18				2							20
				5 upwds															58	1			37							96
Totals	49,217	53,500	1,772	Under 5		86	8	3	3	6					4		110		66	2		3	7						1	79
				5 upwds		177	9	1	32	119			2		37		377		172	3		32	107							314

Notification of Infectious Diseases in the district was adopted 1st June, 1891. *The Corporation Hospital for Infectious Diseases, Linacre, is situated in Derby Ward.*

TABLE No. 1—Tabular Statement of the number of *Births* and the number of *Deaths* and *Infant Mortality* in each months in 1898, comparing these numbers with those in 1897; also the percentage of Deaths under 5 years to total Deaths in 1898.

	BIRTHS.			DEATHS.			DEATHS	INFANT MORTALITY			INFANT MORTALITY, 1897.	
	1898.		1898. Total.	1898.			1897.	1898.		Percen'ge of Deaths under 5 Years to Total Deaths.		
	Males.	F'males		Males	Females.	Total.	Total.	Under 1 Year.	1 Year & under 5.		Under 1 Year.	1 Year and under 5Years
January ...	82	69	151	34	37	71	78	14	16	42.25	18	10
February..	71	78	149	31	38	69	59	20	9	42 02	19	4
March......	77	71	148	42	45	87	72	22	15	42 52	24	12
April	66	75	141	44	35	79	71	24	12	45.57	18	10
May.........	55	64	119	41	35	76	75	22	13	46.05	17	15
June	74	80	154	32	30	62	65	19	10	46.77	24	11
July.........	85	75	160	49	61	110	127	50	17	60.90	63	30
August ...	84	75	159	57	46	103	147	52	17	66.99	68	19
September	79	83	162	57	53	110	88	40	24	58.18	30	11
October ...	78	69	147	50	43	93	80	38	17	59·14	21	15
November.	78	63	141	33	37	70	70	10	11	30	22	15
December.	63	78	141	42	33	75	105	18	13	41.33	25	26
	892	880	1772	512	493	1005	1037	329	174	50.04	349	178

TABLE No. 2—Number of Infectious Cases notified to Sanitary Authority in each month in 1898.

Diseases.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Small-pox.....................	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever...............	34	21	22	26	13	13	4	9	18	34	33	36	263
Diphtheria	2	—	4	2	1	—	—	—	3	1	2	2	17
Membranous Croup	—	1	—	—	—	—	—	—	1	—	—	2	4
Typhus Fever...............	—	—	—	1	11	20	3	1	—	—	—	—	36
Enteric (or Typhoid) ...	5	10	7	3	7	11	4	15	21	26	13	2	124
Puerperal Fever............	—	—	—	1	—	—	1	—	—	—	—	—	2
Erysipelas	6	7	3	1	2	1	2	1	5	2	5	6	41
Totals....	47	39	36	34	34	45	14	26	48	63	53	48	487

TABLE No. 3.—Shows the number of Deaths from the Seven Principal Zymotic Diseases in the Ten Years, 1888 to 1897 (inclusive) and in the Year 1898.

DISEASES.		1888.	1889.	1890	1891.	1892	1893.	1894.	1895.	1896.	1897.	An'al Av'ge of 10 Years,'88-'97	Total Deaths in 1898.	Do after d'dtg & add'g Dths from outside and inside Borough
Small-pox		—	1	—	—	—	4	—	2	—	—	.7	—	—
Measles		14	30	16	35	7	24	15	2	31	14	18.8	7	7
Scarlet Fever...............		18	8	27	31	32	20	36	13	20	12	21 7	15	10
Diphtheria..................		7	12	6	7	14	3	5	12	7	5	7·8	9	8
Cont'd Fevers	Typhus	--	3	1	—	1	—	—	—	—	—	.5	7	7
	Enteric or Typh'd	19	17	8	13	16	46	33	23	24	20	21.9	25	17
	Simple Continued	—	—	2	1	—	—	—	—	—	—	.3	—	—
Whooping Cough........		13	20	50	35	6	34	23	26	15	14	23.6	27	28
Diarrhœa		51	74	61	52	40	131	45	106	72	153	78 5	114	114
Totals......... .		122	165	171	174	116	262	157	184	169	218	173.8	204	191

TABLE No. 4—Summary of Causes of Deaths during the year 1898.

	1898. Names of Diseases.	JAN.		FEB.		MAR.		APR.		MAY.		JUNE.		JULY.		AUG.		SEPT.		OCT.		NOV.		DEC.		Total.		Total
		Under 5	5 and up.																							Under 5	5 and up.	
	Zymotic Diseases.																											
7 Principal Zymotics.	Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	= ..
	Measles	..	..	..	..	..	..	..	..	..	..	3	..	..	..	1	..	2	..	..	..	..	..	1	..	7	..	= 7
	Scarlatina	2	..	..	..	1	..	2	..	..	..	1	..	1	1	..	..	1	..	2	2	1	1	..	..	11	4	= 15
	Diphtheria	1	..	..	..	2	1	..	2	1	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	6	3	= 9
Fevers	Typhus	..	..	..	..	..	..	..	..	..	2	..	2	..	2	..	1	..	..	..	..	..	..	..	..	..	7	= 7
	Enteric or Typhoid	..	1	..	3	..	2	1	..	1	1	..	1	..	1	..	4	..	3	1	4	..	2	..	..	3	22	= 25
	Simple Continued	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	= ..
	Whooping Cough	2	..	3	..	6	1	2	..	..	..	..	..	..	..	3	..	6	..	..	..	1	..	3	..	26	1	= 27
	Diarrhœa and Dysentery	..	..	..	1	2	..	..	..	..	..	5	..	32	1	34	1	24	2	9	..	3	..	..	..	109	5	=114
	Membranous Croup	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	2	..	4	..	= 4
	Puerperal Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	2	= 2
	Erysipelas	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	1	= 2
	Rheumatic Fever	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	= 2
	Syphilis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	= ..
	Purpura	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	= 1
	Pyæmia and Septicœmia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	= ..
	Influenza	..	..	..	..	..	2	..	2	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	1	..	8	= 8
	Dis. of uncertain seat, (incl'ding Cancer 35)	..	3	..	6	..	5	..	1	..	4	..	3	..	4	..	6	1	2	..	2	..	5	..	3	1	44	= 45
	Diseases Tubercular (Phthisis 60)	3	8	2	3	1	6	3	9	3	3	3	..	7	5	5	4	3	6	4	2	3	5	3	6	40	57	= 97
	Diseases of Brain, Spinal Marrow, &c.	4	2	3	4	1	2	3	4	5	6	1	5	4	7	4	2	4	8	4	4	2	1	..	5	35	50	= 85
	——— of Heart and Blood Vessels	..	7	..	5	..	8	..	3	..	2	..	4	..	3	..	1	..	2	..	4	..	3	..	3	..	45	= 45
	——— of Lungs and Air Passages	6	12	7	10	14	14	15	13	9	6	8	4	6	5	10	5	10	6	20	10	6	11	11	12	122	108	=230
	——— of Stomach, Liver, &c.	2	2	2	3	2	1	2	1	7	5	2	2	9	2	..	1	7	1	2	..	2	6	1	1	38	25	= 63
	——— of Kidneys, Bladder, &c.	..	2	..	..	..	1	1	1	..	..	..	2	..	..	..	1	..	1	..	..	..	5	..	2	1	15	= 16
	——— of Uterus, Childbirth, &c.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	= 1
	Malformations	..	..	2	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	2	..	..	..	..	..	5	..	= 5
	Premature Birth	3	..	6	..	1	..	1	..	1	..	5	..	3	..	3	..	3	..	4	..	..	..	1	..	31	..	= 31
	Atrophy and Debility	1	..	1	..	1	..	2	..	4	..	..	..	3	..	5	..	1	..	1	..	..	..	3	..	22	..	= 22
	Old Age and Natural Decay	..	1	..	2	..	..	..	3	..	4	..	1	..	2	..	2	..	6	..	2	..	2	..	1	..	26	= 26
	Diseases of the Bones, &c.	..	..	1	..	1	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	1	..	..	..	3	2	= 5
	Diseases of the Skin	1	..	..	..	..	..	..	..	2	1	..	..	..	..	1	..	..	..	..	..	..	..	1	..	5	1	= 6
	Diseases of the Eyes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	= 1
	Deaths through Violence, &c.	2	2	2	3	3	4	2	2	1	3	..	4	..	4	3	3	1	7	3	4	1	6	..	8	18	50	= 68
	Natural Causes	..	1	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	2	..	6	= 6
	Not Certified (causes doubtful)	2	..	..	..	2	1	2	1	1	..	1	2	..	4	..	2	..	1	1	3	..	2	5	..	14	16	= 30
		30	41	29	40	37	50	36	43	35	41	29	33	67	43	69	34	64	46	55	38	21	49	31	44	503	502	=1005
		71 Jan.		69 Feb.		87 March.		79 April.		76 May.		62 June.		110 July.		103 Aug.		110 Sept.		93 Oct.		70 Nov.		75 Dec.		=1005 Year. 503+502=1005		
		96+131=227 1st Quarter.						100+117=217 2nd Quarter.						200+123=323. 3rd Quarter.						107+131=238. 4th Quarter.								

Table No. 5.

CHIEF SANITARY INSPECTOR'S REPORT FOR THE YEAR, 1898.

Nuisances.

No. of Special Complaints	333
,, Houses Inspected and Re-inspected	5464
,, Nuisances Reported	2955
,, Inspections of Middens	830
,, Cases in which Summonses were issued	15

Disinfection.

No. of Houses or parts of Houses disinfected		434
,, Notices sent to cleanse same		434
,, Houses cleansed by the Corporation in default of owners		22
,, Times bath and disinfecting box was used by Staff and Public		800
,, Inspections of Infected Houses		1036
,, Fever Cases removed to Hospital by Ambulance—		
From Bootle	249	
,, Waterloo and Seaforth	85	
,, Litherland	17	
,, Crosby	8	
,, West Derby	1	
,, Garston (or Walton)	1	
Total ...	——	361

Workshops.

No. of Registered Worshops	91
,, Defects reported during the year	23

COMMON LODGING HOUSES.

No. of Houses registered under the Public Health Act	215
,, Houses newly registered	25
,, Houses vacated by Keepers	30
,, Houses now on Register	170
,, Day and Night Inspections	2138
,, Infringements of Bye-Laws	212
,, Cases brought before Magistrates	2

DAIRIES, COWSHEDS AND MILKSHOPS.

No. on Register	132
,, of Inspections made	320
,, ,, Notices served for defects found to exist	84
,, ,, Dairies, &c. in which Fever occurred during the year	2

CATTLE SHIPS AND CANAL BOATS.

No. of Inspections of Cattle Ships	446
,, Inspections of Canal Boats	136
,, Infringements reported	19

BAKEHOUSES.

No. of Bakehouses in use	41
,, Notices sent in reference to cleansing of same	21
,, Bakehouses found with sanitary defects now remedied	26

FOOD INSPECTION.

Number of seizures of Unsound Food	4
Amount seized during the year	23½-lbs.
Magistrates' Orders for Destruction	4
Number of Cases brought before Magistrates	3

The year's work entailed the writing of 3,500 separate notices and 1,500 letters, making a total of 5,000 separate communications.

Table No. 6—Legal Proceedings.

Breaches of Common Lodging House Regulations		2
Nuisances—	Defective Drains	10
	Filthy Bedding, etc.	2
	Defective Raingutters, etc.	2
	Accumulations of Manure	1
	Fowls kept so as to be a Nuisance	1
	Neglect to comply with Order	1
Dairies and Cowsheds—	Keeping a greater number of animals in a registered shippon than is allowed by the Bye-Laws	2
	Keeping Cows in an Unregistered Shippon	1
Unsound Food—	Exposing for sale Unsound Food	2
Smoke Nuisance		1

TABLE No. 7.

PROCEEDINGS TAKEN UNDER THE FOOD AND DRUGS ACT FOR THE YEAR ENDED 31st DECEMBER, 1898.

Nature of Samples taken	No. of Samples taken	No of Persons proceeded against with the result of proceedings.		
		Total.	Convicted	Discharged
New Milk	77	17	11	6
Butter	15	2	2	...
Vinegar	4	1	1	...
Rum	2	...	...	...
Gin	2	...	...	...
Whisky	2	...	...	..
Coffee	2	...	...	...
Lard	1	...	...	...
Totals	105	20	14	6

One person has been proceeded against under the Margarine Act and convicted.

TABLE No. 8—ANALYSIS OF HARD AND SOFT WATERS SUPPLIED BY THE LIVERPOOL WATER COMMITTEE, TO LIVERPOOL, BOOTLE AND OTHER DISTRICTS IN THE FOUR QUARTERS OF 1898.

Description 1897.	DATES OF		Total Solid Matter in Solution	Organic Carbon.	Organic Nitrogen	Ammonia.	Nitrogen as Nitrates	Total combined Nitrogen	Chlorine	Total Hardness.	Oxygen consumed		Suspended Matters.
	Analysis Report	Samples Drawn									In 15 mins.	In 3 hrs.	
Rivington	Mar. 30th, 1898.	Mar. 7th, 1898.	10·0	·228	·024	·006	·000	·029	1·45	3°·77	·055	·116	Clear, slightly peaty.
Vyrnwy			6·8	·241	·024	·005	·000	·028	0·9	3°·38	·081	·166	Clear but peaty.
Green Lane Well ...			36·6	·058	·016	·001	·483	·499	3·25	17°·7	·001	·001	Clear & colourless.
Dudlow Lane Well ...			18·2	·054	·011	·001	·495	·506	2·9	7°·5	·000	·000	Clear and bright.
Tap in Dale Street ...			12·0	·126	·021	·003	·081	·104	1·7	5°·3	·046	·088	Clear and very slightly peaty.
Rivington	June 23rd, 1898.	June 7th & 8th, 1898.	9·2	·216	·036	·005	·000	·041	1·45	3°·9	·051	·075	
Vrynwy			5·1	·298	·042	·003	·000	·045	0·9	2°·1	·109	·175	
Green Lane Well ...			34·0	·029	·017	·000	·531	·548	3·5	20°·5	·000	·000	
Dudlow Lane Well ...			18·6	·053	·022	·001	·643	·666	3·0	7°·8	·000	·000	
Mixed Water			12·2	·132	·031	·003	·061	·095	1·6	5°·4	·031	·067	
			All the samples are good for domestic use.										
Mixed Water	Sept. 24th, 1898.	Sept. 9th, 1898.	8·2	·225	·025	·004	·000	·028	1·4	3°¼	·041	·081	
Green Lane Well ..			31·6	·062	·014	·003	·553	·569	3·3	16°0	·001	·002	
Dudlow Lane Well ...			18·6	·061	·027	·001	·656	·684	3·0	7°¾	·001	·002	
Windsor Well			38·8	·057	·021	·002	·794	·817	4·1	22°¼	·001	·001	
Tap in Dale Street ...			12·0	·163	·025	·003	·087	·115	1·6	5°½	·045	·081	
Vyrnwy	Dec. 22nd, 1898.	Dec. 6th & 7th, 1898.	5·44	·331	·023	·000	·000	·023	0·8	2°⅓	·120	·234	
Rivington... ...			9·92	·169	·012	·000	·000	·012	1·4	3°¼	·012	·064	
Green Lane Well ...			33·24	·035	·012	·002	·549	·563	8·4	15°½	·000	·001	
Tap in Dale Street ...			9·44	·209	·012	·000	·021	·033	1·4	4°	·064	·120	

Table No. 9.

1898.

Localities.	JAN.		FEB.		MAR.		APRIL.		MAY.		JUNE.		JULY.		AUG.		SEPT.		OCT.		NOV.		DEC.		Total.		
	Under 5	5 and up.																							Under 5	5 and up.	
Aber Street	...	...	1	..	..	..	4	..	...	...	...	...	1	...	...	...	...	...	...	1	1	..	...	1	7	2	9
Addison Street	...	...	...	.	...		...	1	...	...	...	...	..	...	...	.	...	...	...	...	..	...	...	...	...	1	1
Akenside Street	2	.	.	...	...	...	...	...	...	..	...	...	1	...	..	1	1	1	...	...	...	...	...	...	4	2	6
Albany Place	.	...	...	..	...	...	.	...	...	..	...	...	...	..	...	...	...	...	...	...	...	...	...	..	...	...	...
Alma Vale Terrace ...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Alexandra Dock	...	...	...	...	.	...	..	...	...	...	...	...	...	..	...	...	..	...	..	...	...	...	...	...	...	...	...
Ampton Place	...	...	...	...	...	..	1	...	...	...	...	...	...	...	...	...	...	...	...			...	...	...	1	...	1
Antonio Street	...	...	...	...	...	...	...	.	...	...	...	...	...	...	1	...	..	1	...	...	.	...	...	...	1	1	2
Armstrong Street. ...	...	...	...	...	...	...	..	1	...	...	...	...	2	..	1	...	...	..	.	...	...	...	..	..	3	1	4
Ash Street.	...	...	...	...	1	...	...	..	...	...	...	...	...	..	...	...	1	...	2	...	...	...	.	...	4	...	4
Ashcroft Street	...	...		...	...	...	...	..	...	...	..	...	..	...	..	...	...		1	...	...	.	..	...	1	...	1
Audley Street	1	3	1	...	...	.		1	...	2	2	...	2	2	2	2	1	1	...	...	...	1	...	1	9	13	22
Bala Street	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	..	...	...	...		...	2	...	3	1	4
Balliol Road	...		...	...	...	...	...	...	...	...	...	1	1	...	...	...	..	1	...		...	...	..	1	1	3	4
Bangor Street	1	1	1	.	..	...	1	1	...	...	...	...	...	...	...	...	3	...	1	1	...	...	1	...	8	3	11
Bank Road	1	...	...	...	...	..	...	...	..	...	...	...	...	...	...	..	...	...	1	...	...	...	...	1	2	1	3
Beattie Street ...	1	...		...	1	.	.		1	...	..	...	...	...	..	...	..	...	...	..	...	..	...	...	3	...	3
Beatrice Street	1	...	...	...	.	2		1		...	...	...	.	...	2	...	1	...	..	...	...	1	...	2	4	6	10
Benedict Street	..	1	1	1	..	..	1	1	..	..	..	..	1	1	..	..	1	..	..	..	..	2	1	..	5	6	11
Bedford Place	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	1	1	2
Bedford Road, Derby Wd.	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Bedford Road, Stanley Ward, and Terrace ...	..	1	..	1	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1	..	2	1	3	2	9	11
Beech Street	1	..	..	...	..	..	..		..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	2	..	2
Berry Street	..	..	1	1	1	2	..	1	..	..	..	..	3	..	..	1	..	..	1	3	..	..	..	1	6	9	15
Bianca Street	..	1	..	..	..	..	..	..	..	1	..	..	1	1	2	1	..	..	1	1	..	..	..	..	4	5	9
Bibby's Lane	..	..	..	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3
Blackburn Grove... ...	..	1	..	..	..	..	..	..	..	..	...	1	1	..	..	..	..	..	..	..	..	..	..	..	1	2	3
Boreland Street	..	..	..	..	1	1	..	..	1	..	1	1	2	..	..	..	1	..	1	..	..	...	..	..	7	2	9
Carried forward	8	8	5	3	6	6	8	8	2	4	4	3	15	4	10	6	9	5	8	7	1	6	5	10	81	70	151

1898.

LOCALITIES.	JAN.		FEB.		MAR.		APRIL.		MAY.		JUNE.		JULY		AUG.		SEPT.		OCT.		NOV.		DEC.		TOTAL.		
	Under 5	5 and up																							Under 5	5 and up.	
Brought Forward	8	8	5	3	6	6	8	8	2	4	4	3	15	4	10	6	9	5	8	7	1	6	5	10	81	70	151
Bostock Street	...	1	...	1	2	...	...	1	...	...	..	...	1	1	1	...	...	..	1	...	...	2	...	1	5	7	12
Boston Street	...	...	1	1	...	..	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	..	1	3	4
Boswell Street	...	...	...	1	1	...	...	...	...	...	...	...	...	...	1	...	3	1	...	...	...	...	..	...	5	2	7
Bowles Street	...	...	...	...	...	...	...	..	...	...	..	...	...	...	...	...	...	...	...	.	...	...	...	...	...	...	...
Brasenose Road, with Leslie's Buildings	...	1	...	...	...	...	1	2	...	1	..	2	3	...	1	...	...	...	...	...	1	..	1	1	7	7	14
Breeze Hill	...	1	...	...	...	1	...	1	...	3	...	...	..	...	...	...	...	...	...	...	...	1	...	...	...	7	7
Bridge Street	...	...	...	...	...	..	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...
Brook Road	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	2
Brookhill Road	...	...	...	1	2	...	3	..	3	...	...	1	3	1	1	...	2	...	...	...	1	1	1	...	16	4	20
Browne Street	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	2	3
Browning Street	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	2	3
Bullen's Terrace	...	...	...	...	...	...	...	...	..	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bulwer Street	...	...	...	...	1	...	...	...	...	...	...	...	...	...	..	...	...	1	...	...	...	1	...	1	1	3	4
Burns Street	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2	...	1	...	1	1	5	6
Byron Street	...	...	...	...	...	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...
Cambridge Road	...	...	...	...	1	...	...	...	..	..	...	...	...	...	...	...	...	1	...	1	..	...	...	...	1	2	3
Camden Street	..	...	1	...	...	...	...	...	1	...	...	2	...	...	1	...	...	..	...	...	...	...	...	...	3	2	5
Campbell Street	...	...	...	...	...	...	...	.	...	...	...	...	...	...	...	...	...	..	1	..	...	...	...	...	1	...	1
Canal Street and View	...	...	2	1	...	...	...	...	1	...	2	...	...	...	1	...	...	...	1	...	1	1	...	1	8	3	11
Carolina Street	...	...	...	...	...	1	...	...	1	...	...	...	.	1	...	1	...	...	...	1	...	...	...	...	1	4	5
Cedar Street	...	...	...	...	...	...	...	1	...	...	...	...	...	..	1	...	...	...	...	...	...	...	...	...	1	1	2
Chapel Street	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	..	..	...	...	...	...	...	...	...	..	1	1
Chaucer Street	...	...	...	...	1	..	...	..	1	...	1	..	...	...	...	...	...	...	...	...	1	2	...	...	4	2	6
Chesnut Grove	...	...	...	...	1	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	..	2	1	3
Church View	..	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	1	..	...	...	...	...	...	...	1	...	1
Church St., Knowsley Wd.	..	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...
Church St., Stanley Wd.	...	...	...	...	1	1	...	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	2	3	5
Clare Road	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	2	1	3
Carried forward	9	13	10	9	16	11	12	15	9	10	9	9	23	8	17	7	15	8	12	11	6	18	7	15	145	134	279

1898.

LOCALITIES.	JAN.		FEB		MAR.		APRIL.		MAY.		JUNE		JULY.		AUG.		SEPT.		OCT.		NOV.		DEC.		TOTAL.		
	Under 5	5 and up.																							Under 5	5 and up.	
Brought forward	9	13	10	9	16	11	12	15	9	10	9	9	23	8	17	7	15	8	12	11	6	18	7	15	145	134	=279
Clifford Street	...	...	...	...	...	...	...	...	...	...	...	1	2	1	...	...	...	1	...	...	...	...	...	...	2	3	5
Coleridge Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
College View	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Concord Place	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	1
Conway Street	...	...	...	...	...	...	1	...	...	...	...	...	1	...	1	...	...	...	...	1	1	...	...	...	4	1	5
Cornwall Street	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Cowper Street	...	...		...	...	...	...	...	1	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	3	...	3
Cranworth Street	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	2	...	2
Crete Street	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Croxteth Road	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cyprus Road	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Davies Street	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Delaware Street	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	3	3
Denbigh Street	...		...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1	...	...	...	...	...	3	...	3
Derby Rd., Stanley Wd.	...	1	...	1	...	2	...	...	...	...	2	1	1	...	...	...	3	1	1	...	...	...	...	1	7	7	14
Derby Road, Knowsley Ward	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	2	1	3
Devon Street	...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dorset Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Downing Road	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
Drake Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dryden Street	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	1	1	...	...	...	...	...	...	...	3	1	4
Duncan Street	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2
Dundas Street	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	1	2	3
Effingham Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Elizabeth Street	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Elm Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1
Emley Street	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	1	...	1	...	...	...	3	2	5
Carried forward	11	15	11	10	17	15	13	16	11	13	12	12	31	10	21	9	22	11	16	12	8	18	8	17	181	158	=339

1898.

LOCALITIES.	JAN.		FEB.		MAR.		APRIL		MAY.		JUNE.		JULY.		AUG.		SEPT.		OCT.		NOV.		DEC.		TOTAL.		
	Under 5	5 and up																							Under 5	5 and up	
Brought forward	11	15	11	10	17	15	13	16	11	13	12	12	31	10	21	9	22	11	16	12	8	18	8	17	181	158	=339
Ensor Street and Place	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	2	...	2
Essex Street	...	1	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	1	...	...	...	...	...	3	1	4
Everton View	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Exeter Road	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Falconer Street	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1	1	2
Fernhill Road	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Flint Street	1	1	1	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	1	1	1	...	6	2	8
Florida Street	...	1	...	...	...	...	...	2	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	4	5
Formby Place	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Garden Lane	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	2	...	...	...	...	1	...	1	4	2	6
Garfield Street	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	2	...	4	4
Gloucester Road	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	1	1	2
Gonville Road	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gower Street	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Gray Street	...	1	...	1	...	...	2	...	...	...	...	...	...	2	1	1	3	...	...	...	...	...	...	1	6	6	12
Grimshaw Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Grove Street	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	2	2
Hamlet Street	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	...	...	...	...	2	1	3
Hawthorne Road, Stanley Ward	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hawthorne Road, Derby Ward	...	1	1	3	...	3	2	4	...	...	...	...	...	1	...	...	...	...	...	2	...	2	...	3	3	19	22
Hemer Terrace and Place	...	...	...	...	...	...	...	...	...	1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	3	3
Henry Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hertford Road	...	1	...	...	...	...	1	2	...	1	...	...	...	1	1	...	...	...	...	...	1	...	1	...	4	5	9
Hero Street	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
Holly Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	1
Holywell Street	...	...	...	1	1	...	1	...	...	...	...	...	1	...	2	1	...	...	...	...	...	...	...	...	5	2	7
Carried forward	13	21	13	16	18	20	20	25	13	17	13	13	36	18	30	12	28	12	18	14	10	22	10	24	222	214	436

1898.

LOCALITIES.	JAN		FEB.		MAR.		APRIL.		MAY.		JUNE.		JULY.		AUG.		SEPT.		OCT.		NOV.		DEC.		TOTAL. Under 5	TOTAL. 5 and up.	
Brought forward	13	21	13	16	18	20	20	25	13	17	13	13	36	18	30	12	28	12	18	14	10	22	10	24	222	214	=436
Hood Street	...	...	...	...	1	1	...	...	...	...	...	1	3	...	5	...	...	...	...	...	...	...	...	...	9	2	11
Hooton Place	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
Hornby Boulevard ...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Hornby Road and Avenue	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	2	2
Hornby Dock Cottages...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hospital (B. Borough) ..	...	7	2	3	1	4	1	3	...	7	1	5	...	4	...	6	3	5	1	7	1	4	...	7	10	62	72
,, (C. Infectious)...	2	1	...	1	...	...	3	1	1	3	2	1	1	5	...	5	1	3	2	5	1	2	...	1	13	28	41
Howe Street	...	...	...	...	...	...	...	...	1	...	...	1	1	...	1	...	1	...	...	1	...	...	...	...	4	2	6
Irlam Road, Stanley Ward	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	2	2
Irlam Rd., Knowsley Wd	...	...	...	...	2	...	...	...	...	...	1	...	1	...	...	...	...	...	...	1	...	...	...	...	4	1	5
Ivanhoe Street	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	1	...	...	1	2	3
Jersey Street	...	...	1	...	...	...	1	...	...	...	...	...	1	1	...	...	...	...	...	...	...	1	...	1	3	3	6
Johnstone Street... ...	2	...	...	...	1	1	...	...	1	...	...	...	...	...	1	...	1	1	...	1	...	...	...	...	6	3	9
Keats Street	...	...	...	...	1	...	...	...	2	...	...	...	2	...	1	...	1	...	1	...	1	...	...	...	9	...	9
Keble Road	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	2	3
Kenilworth Street ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kent Street	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
Keppel Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kings Road	...	...	...	1	...	...	...	2	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	2	3	5
Kirby Place	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1
Knowsley Road	...	...	...	1	1	1	...	...	...	...	2	...	...	...	...	...	1	...	1	...	...	1	...	...	5	3	8
Laburnum Place	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lamb's Terrace	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1
Langdale Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Langton Dock Cottages	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Linacre Lane and Village	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
Lincoln Street	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	2	1	...	...	...	...	1	...	4	2	6
Carried forward	17	29	16	22	25	29	27	32	20	27	20	23	45	28	42	24	38	24	24	29	13	31	12	36	299	334	633

1898.

LOCALITIES.	JAN.		FEB.		MAR.		APRIL.		MAY.		JUNE.		JULY.		AUG.		SEP.		OCT.		NOV.		DEC.		TOTAL		
	Under 5	5 and up																							Under 5	5 and up	
Brought forward	17	29	16	22	25	29	27	32	20	27	20	23	45	28	42	21	38	24	24	29	13	31	12	36	299	334	- 633
Litherland Road.. ..	1	1	..	..	1	1	..	..	..	..	..	1	1	1	..	..	1	..	..	1	..	..	1	..	5	5	10
Lycns Street	..	..	1	..	2	..	1	..	2	1	..	1	1	..	1	1	2	1	7	..	..	..	1	1	18	5	23
Malcolm Street	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	1	..	3	1	4
Malta Road	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	2	3
Mann Street	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	..	..	1	..	..	..	..	..	3	1	4
Markfield Road	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Marsh Lane, Derby Wd.	..	..	..	..		1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	2	2
Marsh Lane, Knowsley Ward	..	4	..	..	1	..	1	2	..	2	..	..	..	1	1	..	1	1	..	..	..	..	1	..	5	10	15
Matthew Street	1	..	..	1	1	1	1	..	..	..	..	..	..	..	1	..	..	..	1	2	..	..	..	..	5	4	9
May Street	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	1	2
Merton Road, Derby Wd	..	..	..	1	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	4	4
Merton Road, Knowsley Ward	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Merton Road, Stanley Ward	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	1	2	3
Merton Grove	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mildmay Road	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mill Lane	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	2	..	2
Marsh View	..	..	..	..	..	..	..	..	..	..	..	..	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Miller's Bridge with Balliol Terrace..	..	..	..	..	..	..	..	1	1	..	..	..	..	1	1	..	..	1	1	..	1	..	2	..	6	3	9
Milton Street	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	..	1	..	..	..	1	..	5	1	6
Miranda Road	..	..	..	..	..	..	..	..	..	2	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	4	4
Molyneux Street.. ..	..	..	1	..	..	3	1	..	..	..	..	..	1	1	1	..	2	..	..	..	..	..	1	..	7	4	11
Moore Street	1	..	1	..	..	2	..	..	..	..	1	..	1	..	1	..	..	..	..	..	1	..	1	..	7	2	9
Morningside Road ..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	2	2
Mortuary	..	1	..	2	..	1	..	..	..	1	..	3	1	2	1	..	..	3	..	..	..	2	..	..	2	15	17
Nevada Street	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
New Street	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	3	..	3
Carried forward	21	35	20	30	33	38	31	37	23	33	21	28	52	38	50	28	46	31	37	32	17	35	24	38	375	403	—778

1898.

LOCALITIES.	JAN.		FEB		MAR.		APRIL		MAY		JUNE.		JULY.		AUG		SEPT.		OCT.		NOV.		DEC.		TOTAL.		
	Un-der 5	5 and up.																							Un-der 5	5 and up.	
Brought forward	21	35	20	30	33	38	31	37	23	33	21	28	52	38	50	28	46	31	37	32	17	35	24	38	375	403	=778
Norfolk Street	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	2	1	3
Oak Street	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	1	..	..	1	..	..	3	1	4
Olivia Street	..	1	2	1	1	..	..	..	1	1	1	2	2	1	2	1	3	1	1	..	..	..	..	1	13	9	22
Oregon Street	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	1	1	2
Orlando Street	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
Oriel Road	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	1	..	..	2	1	3
Oxford Road	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Park St., Place & Grove	..	..	..	1	..	1	..	1	..	..	1	..	..	..	..	..	1	2	1	..	..	..	..	1	3	6	9
Peel Road..	..	..	..	..	..	1	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	1	..	..	2	2	4
Pembroke Road	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Percy Street	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	1	..	2	2	4
Pine Grove	..	..	..	..	..	..	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	3	..	3
Pleasant Grove	1	1	..	..	1	..	..	1	1	..	.	..	..	..	1	..	1	..	..	..	..	..	..	..	5	2	7
Pleasant Place with Cross Street and Place ..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	1	2
Pleasant View	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
Pope Street	..	..	..	.	..	..	..	..	1	1	..	..	..	..	1	..	2	1	..	..	..	..	..	..	4	2	6
Princes Street	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Queen's Road	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	1	1	2
Raleigh Street	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Recreation Street ..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	2	1	3
Regent Road, Stanley Ward	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Regent Road, Knowsley Ward	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Rhyl Street	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	1	..	3	..	3
Richmond Grove.. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rimrose Road	..	..	..	1	1	2	1	..	1	1	..	..	..	..	1	..	1	..	..	..	..	1	1	1	6	6	12
Carried forward	25	37	23	33	36	42	34	40	30	39	25	30	56	40	60	30	56	36	42	33	18	40	27	41	432	441	—873

1898.

LOCALITIES.	JAN.		FEB.		MAR.		APRIL.		MAY.		JUNE.		JULY.		AUG.		SEPT.		OCT.		NOV.		DEC.		TOTAL		
	Under 5	5 and up																							Under 5	5 and up.	
Brought forward	25	37	23	33	36	42	34	40	30	39	25	30	56	40	60	30	56	36	42	33	18	40	27	41	432	441	—873
Roby Street	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1
Sandfield Place	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
St Alban's Road.. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
St. Alban's Square ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
St Catherine's Road ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
St. Edmond's Road ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.	..	..	..	..	..
St John's Road and Terrace	..	1	2	2	1	1	..	..	..	1	..	2	..	1	1	..	..	1	..	..	..	1	..	..	4	10	14
Sandy Lane with Cross View and Place ..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Salisbury Road	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	1	2	3
Scott Street	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	2	1	3
Seaview Road	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	3	1	4
Seaforth Street	1	..	1	..	..	..	..	..	1	..	..	..	1	..	..	..	..	2	..	..	..	1	..	..	4	3	7
Sheridan Place with Lee's Terrace ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	..	..	..	..	1	2	3
Shelley Street	..	..	1	1	..	..	..	1	..	..	..	..	3	..	..	1	..	..	..	1	..	1	..	..	4	5	9
Sidney Road	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	2	2
Smyrna Road	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Southey Street	..	..	..	..	..	..	1	..	..	..	..	...	..	..	..	1	2	..	1	1	..	..	..	..	4	2	6
Speke Place	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	1
Spring Grove	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stafford Street	..	..	..	..	..	..	..	..	1	..	1	..	2	..	1	..	..	..	1	..	..	..	..	..	6	..	6
Stanley Road, Derby Ward	...	..	..	...	...	...	...	...	..	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	1
Stanley Road, Knowsley Ward	...	...	...	...	..	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	1	2
Stanley Road, Stanley Ward	...	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	2	.	2
Strand Road, Derby Wd.	...	...	...	1	...	...	...	...	1	...	...	1	...	...	...	...	1	1	2	...	...	1	...	...	4	4	8
Strand Road, Knowsley Ward	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	2	3
Carried forward	26	40	28	38	37	43	35	42	35	41	27	33	62	41	62	33	60	43	51	36	18	48	30	41	471	479	—950

1898

LOCALITIES.	JAN.		FEB		MAR.		APRIL.		MAY		JUNE.		JULY.		AUG.		SEPT.		OCT.		NOV.		DEC.		TOTAL.		
	Under 5	5 and up.																							Under 5	5 and up.	
Brought forward	26	40	28	38	37	43	35	42	35	41	27	33	62	41	62	33	60	43	51	36	18	48	30	41	471	479	=950
Suffolk Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Summerseat ..	...	...	...	1	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	3	1	4
Surrey Steeet	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	1	2	3
Sussex Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1
Talbot Street	...	...	1	...	...	1	...	...	...	...	...	...	1	...	...	...	2	...	...	...	...	...	1	...	5	1	6
Tattersall Place	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tennyson Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Trinity Road	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	1	2	3
Tudno Street	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Tudor Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	1	1	2
Thornton Road	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...	...
University Road	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ursula Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	2	...	2
Vermont Street	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Viola Street	...	...	...	...	...	1	...	...	...	...	1	...	1	1	1	...	...	...	...	1	...	...	...	...	3	3	6
Virginia Street	...	...	...	...	...	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	3	4
Wadham Road	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	1	1	...	...	...	...	...	2	3	5
Washington Street ...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	2	...	2
Waterworks Street ...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	3	1	4
Waverley Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wm. Henry Street, with 1st and 2nd streets	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	2	2	4
Windsor Place	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	2	...	2
Wordsworth Street ...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	1	1	3	4
York Street	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1
Total	30	41	29	40	37	50	36	43	35	41	29	33	67	43	69	34	64	46	55	38	21	49	31	44	503	502	1005